

**Meeting of the Federal Open Market Committee on  
December 10, 2002**

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., on Tuesday, December 10, 2002, at 9:00 a.m. Those present were the following:

Mr. Greenspan, Chairman  
Mr. McDonough, Vice Chairman  
Mr. Bernanke  
Ms. Bies  
Mr. Ferguson  
Mr. Gramlich  
Mr. Jordan  
Mr. Kohn  
Mr. McTeer  
Mr. Olson  
Mr. Santomero  
Mr. Stern

Messrs. Broaddus, Guynn, Moskow, and Parry, Alternate Members of the Federal Open Market Committee

Mr. Hoenig, Ms. Minehan, and Mr. Poole, Presidents of the Federal Reserve Banks of Kansas City, Boston, and St. Louis respectively

Mr. Reinhart, Secretary and Economist  
Mr. Bernard, Deputy Secretary  
Mr. Gillum, Assistant Secretary  
Ms. Smith, Assistant Secretary  
Mr. Mattingly, General Counsel  
Ms. Johnson, Economist  
Mr. Stockton, Economist

Mr. Connors, Ms. Cumming, Messrs. Howard and Lindsey, Ms. Mester, Messrs. Oliner, Rolnick, Rosenblum, Sniderman, and Wilcox, Associate Economists

Mr. Kos, Manager, System Open Market Account

Messrs. Ettin and Madigan, Deputy Directors, Divisions of Research and Statistics and Monetary Affairs respectively, Board of Governors

Messrs. Slifman and Struckmeyer, Associate Directors, Division of Research and Statistics, Board of Governors

Mr. Whitesell, Deputy Associate Director, Division of Monetary Affairs,  
Board of Governors

Mr. Clouse, Assistant Director, Division of Monetary Affairs, Board of  
Governors

Mr. Simpson, Senior Adviser, Division of Research and Statistics, Board  
of Governors

Mr. Skidmore, Special Assistant to the Board, Office of Board Members,  
Board of Governors

Ms. Low, Open Market Secretariat Assistant, Division of Monetary  
Affairs, Board of Governors

Ms. Holcomb, First Vice President, Federal Reserve Bank of Dallas

Messrs. Eisenbeis, Fuhrer, Goodfriend, Green, Hakkio, and Rasche,  
Senior Vice Presidents, Federal Reserve Banks of Atlanta, Boston,  
Richmond, Chicago, Kansas City, and St. Louis respectively

Messrs. Elsasser and Furlong, Vice Presidents, Federal Reserve Banks of  
New York and San Francisco respectively

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CHAIRMAN GREENSPAN. The meeting is now open. Would someone like to move approval of the minutes of the previous meeting?

VICE CHAIRMAN MCDONOUGH. I move approval.

CHAIRMAN GREENSPAN. Thank you. Without objection, they are approved. Dino.

MR. KOS.<sup>1</sup> Thank you, Mr. Chairman. I'll be referring to the charts that were circulated a few minutes ago. The top panel on the first page graphs three-month cash deposit rates for the dollar and the euro as well as three-month deposit rates three months and nine months forward. The U.S. three-month deposit rate—the solid red line—declined in anticipation of an easing at the Committee's November 6 meeting and fell further after the 50 basis point reduction in the target fed funds rate. While the three-month forward rate tracked movements in the cash rate, the nine-month forward rate diverged from the cash rate and actually rose about 25 basis points over the intermeeting period, as many in the market began to weigh the possibility that the end of the easing cycle had been reached. In recent days, the three-month forward rate has fallen slightly, reacting to some weaker than expected data, including the ISM data and the unemployment rate.

Meanwhile, deposit rates in the euro area also were declining steadily in the intermeeting period, as the market increasingly anticipated an easing move by the ECB at its December 5 meeting. Deposit rates in the euro area continued to fall in the past few days, in reaction to the ECB's surprising 50 basis point cut in its minimum refinancing rate. In contrast to the relationship between cash and forward rates observed in the United States, forward rates in the euro area continued to trade at or below cash rates, suggesting that market participants expect further easing by the ECB.

U.S. Treasury yields have fluctuated widely, tending to rise after the Committee's November meeting as risk aversion receded. But yields subsequently declined as several weak data reports again attracted flows into government bonds. The bottom panel of chart 1 shows recent rates on the two-year Treasury note along with the target fed funds rate. The yield on the two-year note actually rose in the aftermath of the Committee's November meeting, and the spread to the target funds rate widened to 75 basis points in late November, the widest such spread since early July. One of the reasons cited was the more positive sentiment triggered by the easing action itself. Second, some participants viewed the election results as positive. Third, technical factors related to positioning of the two-year note also may have played a role. Finally, as I noted earlier, there was a sense that the November cut in the funds rate was perhaps the last move in the easing cycle.

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<sup>1</sup> The materials used by Mr. Kos are appended to this transcript (appendix 1).

Turning to page 2, the situation in credit markets has improved markedly since the last meeting. Bid-offered spreads have narrowed to more-normal levels, liquidity is improved, and issuance has revived in recent weeks. Spreads relative to Treasuries have narrowed, in some cases significantly. As shown in the top left panel, the spread of mortgage-backed securities to Treasuries declined only slightly since the last meeting, but it had declined about 25 basis points since mid-October, to below 100 basis points.

More pronounced has been the improvement in investment-grade corporate spreads—shown in the top right panel—which declined from a recent peak of 220 basis points to about 140 basis points. The spreads for high-yield bonds—the middle left panel—exhibited a similar narrowing, falling from over 1,000 basis points to about 800 basis points. The EMBI+ spread, driven in part by a recovery in Brazil, also narrowed similarly.

Another way to view the situation in the corporate debt market is to look at how much of the outstanding stock is trading at distressed levels. For this exercise, we arbitrarily defined distressed investment-grade bonds as those trading at a spread over Treasuries of 500 or more basis points, and we defined distressed high-yield bonds as those with a spread of 1,500 basis points or more. As shown in the lower panel by the red bar on the left, on October 15 about 12 percent of the investment-grade universe met that definition of distressed. That percentage dropped sharply one month later in the days immediately after the Committee's meeting, and it fell still more as of this past Friday as shown by the green bar on the bottom left. As can be seen on the right side of the bottom panel, there has been improvement in the high-yield sector as well, though proportionately not quite as much as in the investment-grade sector.

Looking at volatility across asset markets—page 3—volatility measures have trended lower recently, but they have risen somewhat in recent days, coinciding with the release of some weaker-than-expected data. The S&P 100 volatility index, or VIX, fell from about 50 percent in early October to about 26 percent in late November, coinciding with the rally in the major indexes. In recent days, this volatility index rose again into the low 30s as equity prices began to decline. Interest rate implied volatilities also fell sharply over the intermeeting period. The middle panel depicts the implied volatility on eurodollar deposit futures contracts. From extremely elevated levels of between 50 and 60 percent in late October, it fell sharply in the days around the Committee's meeting. Even though it has drifted back up to about 30 percent, still a relatively high level for this contract, it is half the level of only six weeks ago. Finally, twelve-month foreign exchange volatilities for the major currency pairs have remained low and short-dated volatilities were lower still. In particular, the one-month volatility of the euro-dollar cross rate was briefly below 7 percent, as the currency pair appeared stuck near parity.

Let me turn briefly to the behavior of the commercial paper market, as we approach year-end. The top panel of page 4 graphs A2/P2–A1/P1 spreads from September 1 to the end of February for the years 2000-01 and 2001-02; for the

current year it shows the spreads from September 1, 2002, to date. The top panel depicts this spread for thirty-day paper on the left and for ninety-day paper on the right. In 2000—the black line—the spread between A2/P2 and A1/P1 spiked sharply in late November, triggered by the crisis in the California electricity market. Last year—the gold line—spreads similarly widened, affected by both the aftermath of September 11 and the Enron crisis. To date this year—the red line—spreads for both maturities are only slightly wider, and market conditions reportedly are showing none of the stress exhibited in the last few years.

The bottom panel on page 4 graphs commercial paper spreads around the year-end relative to Treasuries. The left side depicts yields on ninety-day A1/P1 paper relative to three-month Treasury bills. The bottom right shows the same relationship for A2/P2 paper. Once again the black and gold lines represent the spreads for the last two years, and the red line depicts the spreads for this year through last Friday. The rate on A1/P1 paper has barely budged relative to Treasuries, and that on A2/P2 paper has widened somewhat, though less than in previous years. The reduction in risk aversion that helps explain the narrowing of credit spreads is probably relevant here as well. But the other factor at work is the notable shrinkage in the commercial paper market in the past year, as the most vulnerable issuers withdrew from the market and termed out their debt.

Turning to page 5, European markets have coped with weak data, lower forecasts of future growth, a weakening fiscal outlook in major countries, uncertainty about the Stability and Growth Pact rules, and—until last week—uncertainty about the willingness of the ECB to ease policy to counter slow growth. European equity markets along with the U.S. and other global markets fell in September and early October before recovering somewhat. The German market lagged, as the outlook regarding the strength of the German banking system in the near-term was viewed as particularly bleak. Despite that bleakness, in the euro area bond spreads narrowed in line with global trends. The middle panel graphs BBB-rated and A-rated bonds relative to German ten-year bunds. The lower-rated BBB bonds in particular narrowed sharply in relation to bunds. And issuance in the euro area bond market—as shown in the bottom panel—reversed course in November, roughly tripling from October's depressed levels.

Finally, turning to page 6, Japanese markets continue to be nothing if not interesting. The dollar-yen exchange rate, though trading in a relatively narrow range recently, has been susceptible to bouts of short-term choppiness. Comments by finance minister Shiokawa eight days ago, suggesting that an exchange rate of 150 to 160 per dollar was appropriate, initially weakened the yen. Mr. Shiokawa backed off in subsequent days, and the yen retraced its decline a bit, but on net it was modestly weaker against most major currencies over the past month. Market participants generally still presume that the Japanese authorities prefer a weaker yen, though so far the price action has been limited. The fact that the exchange rate has been stable in the face of these comments is viewed by some as evidence that statements by officials have little effect beyond the very short run. But others note that the volatility

has been low for another reason—because the Bush Administration has not engaged in a tit-for-tat public exchange and reaction to comments by Japanese officials, such as those made by Shiokawa. According to this view, it was those types of back-and-forth exchanges that made markets nervous in previous years.

In the fixed-income markets, the ten-year Japanese Government Bond (JGB) yield has been stuck at around 1 percent despite the uncertainty about the Takenaka Plan, which involves the potential for significantly higher issuance of JGBs. Indeed, the JGB curve has trended down during 2002. The middle panel depicts two snapshots of the JGB yield curve—as of January 2 of this year and as of yesterday. The entire curve is lower, especially at the long end where thirty-year yields are about 65 basis points below their levels at the beginning of the year. Finally, neither the Bank of Japan's announcement of its equity purchase plan in September nor the Takenaka Plan has so far inspired confidence among equity investors. The Nikkei index has traded mostly below 9000 in recent weeks, a level that is thought to be problematic for portfolios of many banks and insurers. The Bank of Japan began its equity purchases from banks on November 29; these purchases in the aggregate could be rather modest at about 2 trillion yen.

Mr. Chairman, there were no foreign operations in this period. I will need a vote to approve our domestic operations. And I'd be happy to take any questions.

CHAIRMAN GREENSPAN. Questions for Dino? Governor Bernanke.

MR. BERNANKE. Dino, on the mortgage-backed securities chart on page 2, I wondered if the sharp declines might reflect a decline in refinancing risks. Or do you think they reflect the same consideration of all the risks that apply to other kinds of debt?

MR. KOS. I think the lower refinancing risks probably were a factor, but the mortgage market is rather complicated, and the optionality in mortgages is something that obviously is hard to predict. It's difficult to disentangle the refinancing aspect of the mortgage market from the broader trends that were narrowing spreads more generally.

MR. BERNANKE. Thank you.

CHAIRMAN GREENSPAN. Other questions? If not, Vice Chairman.

VICE CHAIRMAN MCDONOUGH. Move approval of the domestic operations.

CHAIRMAN GREENSPAN. Without objection. Thank you, very much. Let's turn now to David Stockton and Karen Johnson.

MR. STOCKTON. Thank you, Mr. Chairman. I was impressed at the last meeting with the creative language used by many members of the Committee to describe the economic outlook. So this morning I thought I'd try my hand at explaining the forecast using some of that language. To begin with the current quarter, I can report that—as the saying apparently goes—there has been about as much pumpkin as we had earlier anticipated though there is clearly less pumpkin now than in the third quarter.

CHAIRMAN GREENSPAN. It turned out to be seedy! [Laughter]

MR. STOCKTON. The story of our longer-term projection should be familiar. Though we believe that there was a little jam yesterday and that there is some jam today, we would have to admit that in the projection it's still mostly jam tomorrow. The inflation picture also is about unchanged; everything at the dollar store still costs a dollar. With respect to the risks to the outlook, we think we see light at the end of the tunnel, but we're nervous about the fact that, whatever the light is, it seems to be getting brighter while we are standing still.

I apologize for not citing all of the colorful metaphors that seemed to be guiding your deliberations at the last meeting, and even more so for now returning to my own plodding prose. In fact, there's not a great deal more to be added. It has been a reasonably tranquil period for the forecast by the standards of the past couple of years. The principal change we made was to incorporate the effects of your easing of monetary policy and to account for our perception that the elections had shifted the political balance in favor of somewhat greater fiscal stimulus.

The incoming data, on balance, have been close to our earlier expectations and have reinforced our impression that we are indeed working through a soft patch in economic activity. The signs of sluggishness have been most evident in the labor market and in the manufacturing sector, especially the motor vehicle industry. Once again, we received an employment report immediately after publication of the Greenbook. Private payroll employment dropped 48,000 in November in contrast to our expectation of a gain of 20,000. Essentially the employment increases that had occurred over the summer have now been reversed. Our largest forecast error occurred for the unemployment rate, where we had expected an increase from 5.7 percent to 5.8 percent and instead saw a jump to 6.0 percent. That said, I would characterize this development as more a "surprise" of timing than magnitude. As you know, we had been puzzled by the failure of the unemployment rate to rise noticeably in recent months, given the weakness in payroll employment. The puzzle now seems to have been resolved in a single month. The only upward surprise in the November labor market report was in hours worked, which increased a bit more than projected in the Greenbook. Taken together, the November data suggest a bit weaker labor

market than we had expected but with little material consequence for our forecast. We would probably carry a slightly higher unemployment rate into early next year—on the order of a tenth or so—and leave our GDP forecast unchanged for now.

The labor market, however, was not the only source of weakness. The major contributor to the sharp slowing in activity between the third and fourth quarters has been the motor vehicle industry. Sales of light motor vehicles have dropped back considerably from the torrid pace registered this summer, as the average level of customer incentives has fallen, on net, since August. The slump in sales has led the automakers to trim production in the fourth quarter. So after contributing about 1 percentage point to the growth of real GDP in the third quarter, motor vehicle assemblies are lopping off nearly 1½ percentage points from growth in the fourth quarter. And even those production adjustments have not been sufficient to prevent inventories from having become a bit heavy, so that some combination of further production cutbacks and sweetened incentives likely will be necessary in the months ahead.

More broadly, activity in the factory sector has sagged again in recent months. We now expect manufacturing IP outside of motor vehicles to drop about ¼ percent in November, continuing a pattern of decline that emerged in late summer. In our forecast, we are not looking for any noticeable increases until the spring. The recent weakness stems, in part, from a significantly diminished impetus to activity from inventory investment. A smaller swing in nonauto inventory investment and the cutbacks in motor vehicle production account for essentially all of the slowing in the growth of real GDP in the current quarter.

To date, we have seen few signs that this period of weakness is spreading or cumulating into something more serious. With the exception of motor vehicles, final sales are projected to grow about 2 percent at an annual rate in the current quarter, the same rate as in the third quarter. Moreover, initial claims for unemployment insurance and insured unemployment have both come down in recent weeks. For the most part, nonauto inventories appear to be in reasonable balance. And commodity prices have been relatively firm, suggesting that the recent weakness in factory output is not yet of cyclical dimensions. Instead, this appears to be a particularly soft spot in a generally subdued expansion. We expect subpar economic performance to extend into early next year, with real GDP projected to grow about 2¼ percent at an annual rate in the first quarter—unchanged from our previous projection.

However, beyond the near term, we have made more noticeable adjustments to our forecast, largely to reflect changes in our underlying policy assumptions. Most important, we lowered our assumed path for the federal funds rate 50 basis points in light of your action last month. We assume that the funds rate will stay at 1¼ percent through the middle of 2004 before gradually rising. This more stimulative monetary policy accounts for the bulk of the upward revision that we have made to the forecast.

We have also built in a slightly more stimulative fiscal policy, which provides a small additional boost to growth in 2004. We have assumed a reduction of personal income tax payments of \$25 billion in 2004, over and above the next installment of marginal rate reductions. These tax reductions are assumed to be partly offset by about \$5 billion of cuts in federal spending. We view these adjustments to our forecast as better balancing the risks in light of last month's elections. As we noted in the Greenbook, we are largely agnostic about the form in which this stimulus will be delivered. But as an example, a package of this dimension could include pulling forward the child tax credit and marriage penalty relief that are currently scheduled to occur later in the decade.

The more stimulative monetary and fiscal policies give a steeper tilt to the trajectory of growth in this forecast. We now project real GDP to increase 3¼ percent in 2003 and 4¼ percent in 2004—about ¼ and ½ percentage point faster, respectively, than in the October Greenbook. That pace is rapid enough to begin to erode the margin of excess capacity by late next year, and the unemployment rate is now projected fall below 5½ percent by the end of 2004.

As has been the case at several junctures over the past couple of years, our outlook is once again apparently at odds with that of the market. Even after the developments of the past week, market participants are anticipating an earlier and more aggressive tightening of monetary policy than we have incorporated in our baseline projection. In our forecast, growth remains subdued through midyear, weighed down by the continuing adjustment of household spending to the decline in stock market wealth, the playing out of the boost we have been getting from inventory investment, and the lackluster economic performance of our major trading partners. As a consequence, we do not envision the same urgency for tightening as is built into market expectations. Only by late 2003 do the waning effects of the earlier stock market declines and the improving investment picture lift growth in real GDP above that of potential.

We readily admit that we could have this wrong. The markets apparently continue to be looking for something that resembles a more conventional period of economic recovery. And with the real federal funds rate at or below zero for nearly two years, we cannot rule out a period of more-vigorous growth. Those risks are amplified by the possible enactment of a major stimulus package early next year. Certainly the buzz about that possibility has been growing in recent days. Given the uncertainties about the magnitude, timing, and composition, we were dissuaded from building into the forecast a larger and more immediate stimulus package. Instead, we addressed that possibility in an alternative simulation that assumed a combination of a payroll tax holiday and an acceleration of the marginal rate reductions included in the 2001 tax legislation, with those actions taking effect early next year. That package—roughly \$115 billion of added stimulus next year—raises growth of real GDP above 4 percent, on average, throughout the projection period. In this alternative scenario, the faster pace of activity pushes the unemployment rate down to 5 percent by the end of 2004, and core PCE inflation levels off at just under 1½ percent. While there are

clear upside risks to our projection, we continue to see some sizable counterbalancing risks to the downside. The most obvious risks center on our forecast of capital spending. To be sure, there has been a substantial turnaround in equipment spending from last year to this; steep declines in spending in 2001 have given way to modest increases this year. In our forecast, that process of improvement continues into next year and 2004, with growth in real E&S spending picking up from low single digits this year to low double digits next year. Accelerating output and sales, a low and declining cost of capital, and tax incentives are projected to help propel faster growth of spending over the next two years.

But thus far this year, equipment spending has continued to fall short of the fundamentals, at least those that we are capable of quantifying in our models. That shortfall likely reflects a variety of factors including gloomy business sentiment, a sense of heightened uncertainty about economic and geopolitical conditions, financing difficulties in some sectors, and lingering overhangs of capital. Whatever the sources, the unusual restraint on business spending will need to largely dissipate by the second half of next year in order to get our projected acceleration of business spending. And that still remains a forecast. Although reports on capital spending plans have been mixed of late, I think it's fair to say that the combination of caution and pessimism still predominates.

There are risks to the consumption outlook as well. We view this quarter's flattening out as a pause, driven importantly by the drop-off in motor vehicle purchases. If that slump reflects the beginning of a more persistent weakening of overall consumer outlays—one that occurs before the acceleration of business spending—the current soft patch could come to look a lot more like the La Brea tar pits.

A final downside possibility is that financial markets have overreacted to a few pieces of good news in recent weeks. We were impressed by the extent to which the markets moved on the positive surprises in readings on retail sales, durable goods orders, and initial claims—all noisy indicators of activity. Any substantial retracing of these recent gains—and we have seen some of that in the stock market in the last few days—would cause us to revise down our projection for growth, all else being equal. In sum, we feel comfortable with the balance of risks surrounding our projection of real output. But those risks remain considerable.

I have devoted little attention this morning to our inflation projection largely because there has been little news with regard to price inflation or its determinants. Measures of core inflation have generally drifted down over the past year. And, with slack in resource utilization expected to persist over the projection period, we anticipate a further slight reduction in these measures over the next two years. But neither our models nor surveys of inflation expectations suggest any sharp deviation from the recent performance of prices in the period immediately ahead. Karen Johnson will continue our presentation.

MS. JOHNSON. As we reported in the Greenbook, the staff did not see the developments since the November FOMC meeting as indicating a need for any major revisions to our outlook for economic activity abroad or for the U.S. external sector. Some new information did prompt marginal changes to our forecast for particular countries, but these small adjustments were largely offsetting. The challenge confronting us as we put together this forecast remained that of ensuring that the overall strengthening in the global economy that we have again presented is consistent with the extent of stimulus we see outside that present in the U.S. economy.

We have become slightly more pessimistic about the outlook for the euro area and have written down real GDP growth in that region by 0.3 percentage point in 2003 and slightly less in 2004. Most, but not all, of that revision is accounted for by the change in our outlook for Germany. We see the obstacles to growth in Germany as looming larger than we had previously thought. German fiscal policy is constrained in the near term by the failure to have made more progress over the past several years in achieving the medium-term goals set out in the Stability and Growth Pact. The momentum for structural reform within Germany seems to have faded, perhaps because of the politics of the election this year. There are particular problems in the German banking system that raise questions about the efficiency with which capital is being allocated and that may be impeding a return to more dynamic growth. And the general weakness in business spending on new capital in Europe and elsewhere works to the disadvantage of Germany's manufacturing industry—the core of the German economy.

Slight upward revisions to our projections for Mexico and for some of the emerging-market economies in Asia essentially offset our less favorable outlook for the euro area. These small positive changes were driven by some recent data, which confirmed solid expansion in Mexico and Korea, and by the stronger outlook in this forecast for the acceleration in real output in the United States over the forecast period. These regions are extremely vulnerable to any weakening in U.S. activity or, for Asia, to any faltering in the recovery of the global high-tech sector. We have built into the forecast the consequences of the current-quarter slowing now apparent in the United States and elsewhere. But our slightly more optimistic projection for output growth in 2003 and 2004 in Mexico and emerging Asia reflects the boost to U.S. growth expected from your move at the last meeting. It is not the consequence of any significantly stronger domestic demand now evident in those foreign economies.

Last Thursday, the ECB Council lowered its official lending rates 50 basis points, bringing the minimum repo rate down to 2.75 percent. Ahead of the meeting date, members of the Council had signaled the likelihood of this step, and we had incorporated it into the Greenbook forecast. We are not looking for any further reductions by the ECB and do not expect them to begin moving up rates until mid-2004. We view rates at the current, rather low, level as necessary for the moderate recovery in growth that we expect will begin next spring.

The underlying factors that are the basis of our expectation for moderate acceleration in the pace of activity abroad are similar to those for the U.S. economy. Monetary policy is stimulative in several of the major industrial countries, although its effectiveness in Japan remains a concern. Inventory cycles abroad are well along and, to varying degrees, we expect will be adding positively to the change in output over the forecast interval. The restraining effect of lower equity prices on spending, either because of hits to confidence or direct wealth effects, should be waning. And lower oil prices will reduce headline inflation, boost confidence, and support domestic spending. Domestic demand has been buoyant in a few cases—such as Canada, the United Kingdom, and Korea—and appears to be firming in others. These factors point to only a moderate pace of recovery in 2003. Such an outcome should allay concerns that now weigh on spending and support further recovery in growth to more vigorous rates in 2004. Except in Canada, this projected path for real activity still leaves the level of output below potential in the major foreign industrial countries even at the end of 2004.

We are concerned that there is limited scope outside the United States to react to any new negative economic developments that might arise. In both Japan and the euro area, options with respect to fiscal policy are severely limited. But most countries do have room to maneuver with respect to monetary policy should the recovery go off track. In South America, even a very favorable outcome would not generate positive spillovers elsewhere; at best, we are looking for no major deterioration in Brazil and so no negative contagion problems within the region. In emerging Asia—the region that has so far displayed the most resilience—there would be some scope for absorbing some external shock to the real economy. Continued robust growth in China is a stabilizing factor in that region. Nevertheless, we judge that, were U.S. real GDP not to accelerate as projected in the baseline forecast, the projected strengthening of activity elsewhere in the global economy would be undermined as well. David and I will be happy to answer any questions.

CHAIRMAN GREENSPAN. Incidentally, did you factor in the expanded estimate of oil reserves in the La Brea tar pits?

MR. STOCKTON. To the extent that that is built into the futures markets, it's comfortably within our forecast.

CHAIRMAN GREENSPAN. I think we will defer in all respects to President Jordan in case he wants to leave early and go back to the private sector! [Laughter]

MR. JORDAN. Thank you. Dave, I saw a report last week that the 2000 Census had been adjusted further—by another 3.3 million people—to correct an undercount. And if my

memory is not already failing, the rolling forecast initially had numbers that were 7½ million or so lower than the preliminary Census 2000 data. We're talking about close to 11 million people not counted over a ten-year period. That is huge, it seems to me. Have you had time to look at those data and think about what the revision does to some of the many numbers we look at on income and productivity, for example, and also to the divergence between the household and the payroll employment series?

MR. STOCKTON. Well, the short and honest answer is "no." We'd have to think long and hard about what aspects of the statistical program would have to be adjusted and thus blown up by a larger population number. Obviously some measures would not need to be adjusted because many of the figures—the census of manufacturers, the retail census, and so forth—are universe counts already and would be unaffected. Other measures clearly would be affected—the total level of household employment, for example. So I'm not sure what that change in the population figure would produce in the way of altering the picture of the overall economy. However, with respect to some of the fundamental characteristics of the expansion in the 1990s, I don't see this revision changing, for example, the sharp acceleration of productivity that we had. I don't think it necessarily would alter things like the perceived level of slack in the labor markets, given that changes in population probably would affect both employment and the labor force. I'm sure there are some consequences, but at this point I just don't know exactly what they would be.

CHAIRMAN GREENSPAN. Theoretically, population is also a factor embodied in the underlying housing demand analyses that we've been doing. Haven't we taken that into consideration to a significant extent?

MR. STOCKTON. Well, as you know, partly at your direction, prior to the 2000 Census we had been looking at the possibility that there would be some significant upward revision in the population estimates, and in some sense that certainly had already informed our thinking. These recent revisions, however, are additional refinements. But again, I'm not sure that they would affect the picture of the 1990s in any material way. I don't think the revisions would have any perceptible effect on the forecast going forward because these are mostly level adjustments rather than growth rate adjustments.

CHAIRMAN GREENSPAN. President Poole.

MR. POOLE. Thank you, Mr. Chairman. I have a couple of questions I'd like to ask. If we were to compare the forecast this time with the forecast last time using the market-based funds rate line in your alternative scenarios, I take it that not very much has changed. Am I reading you correctly? I didn't pull out my previous Greenbook to verify it, but I think last time the nearer-term market forecast on the fed funds rate was down from where you had it, and this time it's the other way around.

MR. STOCKTON. Yes, and the differences weren't very pronounced last time, whereas this time they are more pronounced.

MR. POOLE. They are more pronounced this time. So if we were comparing the two forecasts, there has been a little improvement in the market's outlook for GDP, employment, and so forth, but not all that much?

MR. STOCKTON. Yes, as of a little over a week ago it looked to us as if the revision in market expectations for the funds rate implied an upward revision to the market's outlook for spending. In contrast, our forecast was only adjusting to the extent that we had lowered the entire path of the funds rate going forward to reflect your easing move at the last meeting. Now

our expectation regarding the funds rate path really has come back closer to where it was at the time of the last meeting, suggesting no significant revision there either.

MR. POOLE. Okay. My next question is about two rather outsized numbers that caught my eye. The less important one is the surge in M3, which was concentrated in institutional money market funds. It's a big number. Do we know what's going on there? And second, what do you make of the productivity surge? That's obviously a very important issue, and the productivity number is really quite large. You didn't say very much about that, it seems to me.

MR. STOCKTON. I'll start with your second question, and perhaps Vincent will speak to the M3 data. Obviously there was another very significant surprise in the productivity numbers. Some of that is real in that output, in fact, turned out to be a bit better than we had expected. Some of it is a reflection of the way the statistical system is constructed. The productivity series that we show and that gets featured by the BLS is a series for nonfarm business excluding the housing sector. It turns out that mortgage refinancings, which accelerated very rapidly in the third quarter, are treated as intermediate input to the housing sector. That shows up as less gross product originating from the housing sector. The latter is subtracted from nonfarm business output, so we get a much bigger increase in nonfarm business output in the third quarter. We think that will be an additional increment to productivity growth in the fourth quarter. Then, as the refinancing begins to wane some next year, that will be a factor holding down the growth of nonfarm business output ex housing.

CHAIRMAN GREENSPAN. Incidentally, if it is an intermediate product, then that's a correct calculation.

MR. STOCKTON. That's absolutely right. But I would say—

CHAIRMAN GREENSPAN. That's not to say that it didn't happen.

MR. STOCKTON. Right, and if it really did, that would show up as much more productivity or output in essence in the provision of financial services.

CHAIRMAN GREENSPAN. What I'm trying to get at is that unless one is arguing that the interpretation is questionable as to whether it's an intermediate or final product, then that's no different than any of the other 10,000—

MR. STOCKTON. Well, I'm trying to explain why nonfarm business output—when one looks at the top line of GDP—was so close to what we had expected while productivity was so much stronger. You're absolutely right that to the extent that this productivity growth really reflects higher productivity in the mortgage banking industry, for example, that's real productivity.

Obviously, though, that still leaves us with a substantial additional surprise on productivity. We have revised up our estimate of the level of structural productivity for 2002. And we continue to believe that some of this improvement is likely to fade away as business caution begins to erode. But more of it is going to persist than we thought at the time of the last forecast. We're still nervous about whether we've underdone it in terms of revising up the growth rate of potential output going forward. That is something we plan to reevaluate before the next meeting, with a bit more data in hand, to see where we are. We typically make more-significant revisions in our supply-side forecast at the January meeting—and at the August meeting after we get the annual revisions—so we expect to look at that further. But the pattern that we're seeing still appears to be one where we are being surprised by the weakness of overall employment and by the strength of overall productivity. We've interpreted that partly as indicating that firms are able to extract more out of their given resource base, at least for a time, and we view some of it as true structural productivity.

MR. POOLE. Yes, but except for the refinancing issue, there does not seem to be any statistical anomaly that you can put your finger on.

MR. STOCKTON. No, but I do think there are some reasons for being a bit cautious when we get sharp moves. There is a question as to whether the accounting system is in fact completely frictionless. I'm not sure.

MR. POOLE. So it's not just a one-quarter phenomenon?

MR. STOCKTON. It's not just a one-quarter phenomenon. Obviously, we've had a year now of absolutely spectacular productivity growth.

MR. POOLE. Yes, a year of remarkable numbers.

MR. STOCKTON. Just to remind you, we did see a pattern of quite strong productivity growth in the early 1990s that played out before the acceleration in the expansion got going. We saw a surge in the early 1990s that one also could have interpreted as an acceleration of underlying productivity, which turned out later not to have occurred. So I think we have a little statistical support for a pattern similar to what we saw at that time. But I would say that the risks clearly are more to the upside than to the downside on this aspect of our projection. And we tried in the alternative simulations to give you a sense of how important that might be going forward.

MR. REINHART. As you noted, President Poole, M3 has been growing very rapidly. It's on track for something like a 19½ percent rate of growth in November. That is accounted for mostly by the growth in money funds, which probably expanded at a rate of about 80 percent last month. That in turn is a direct result of the policy easing and the historical accounting in money funds. They pay the average return on their assets. When short-term market rates fell with the

½ point policy easing at the beginning of the month, investors rushed in to extract some of those capital gains. We think that pretty much has played out.

MR. POOLE. But the funds obviously are not coming—not entirely anyway— from other M3 assets.

MR. REINHART. A lot of them would involve some substitution from RPs in particular. But we think that, on net, there is some attraction from other sources of funds into M3.

MR. POOLE. Do you have any idea where the funds were coming from to the extent that they were from outside M3 assets?

MR. REINHART. Not in particular, no.

CHAIRMAN GREENSPAN. President Moskow.

MR. MOSKOW. I had a question about the deflation scenario that you showed in the Greenbook, David. As I understand the scenario, deflation was caused by two factors. One was the downward adjustment to prices, and an unexpected weakness in aggregate demand was added to it. I have two questions about this. First, if we didn't have the aggregate demand shock but had only the downward shock in prices, what would the deflation scenario look like in terms of its impact on output? Also, one channel of influence on output, of course, would be higher real interest rates as a result of deflation. But are there other channels through which deflation would have effects on output as well?

MR. STOCKTON. In terms of the relative contribution of the shocks we built into this scenario from wages and prices and from the weakness in aggregate demand, it's roughly half and half. You can see that to some extent by taking a look at the numbers in the recession scenario, which in essence has just the weakness in demand. That gets real GDP in 2004 down from the baseline of 1.3 percent to 0.9 percent. It goes down another ½ percentage point in the

deflation scenario when we incorporate the additional shocks to wages and prices. Now in some sense, that's just a matter of how we constructed that deflation scenario. I think the important point is that it takes a combination of shocks to put us there. Obviously, we could have a huge recession—a three standard deviation type of event on wages or prices—and perhaps get there. But essentially the model doesn't want to push the economy into deflation without combining a number of these different kinds of shocks. A combination of shocks is necessary in order to get a persistent deflation.

As for the way the deflation affects output, I think the principal channel through which it operates in the model is the real interest rate. I should be very clear that this alternative scenario we're showing is probably not the deflation scenario you would be most worried about. The latter is a situation where we get into a deflation and you had already lowered the federal funds rate to zero and couldn't use conventional monetary policy anymore to pull the economy out of recession. We've done some stochastic simulations to calculate the probability of that type of deflation scenario, and the model suggests that it is less than 10 percent—something like 8 or 9 percent. If we calculate the probability of a deflation by allowing shocks to everything—aggregate demand, productivity, the wage and price equations—the probability is much higher, more on the order of one-third. But that would not necessarily involve the kind of macroeconomic situation that would create significant difficulties for you because in many of those simulations you would still have some scope to lower the federal funds rate to try to reduce the real interest rate and pull the economy out of that situation.

MR. MOSKOW. Let me make sure I understand the first part of your answer. If we had only the shock from lower prices and lower wages, that would not have a sufficient impact to produce the effect on output shown in the Greenbook simulation.

MR. STOCKTON. Not of the dimensions that we built into this scenario. Again, we could construct all sorts of simulations; we could give the model any kind of shock we wished. But in terms of the type of shock we gave it in this simulation, it would not be sufficient to push us into deflation.

MR. MOSKOW. And there are no other channels that you see deflation working through to output besides the higher real interest rate?

MR. STOCKTON. Not in the way that this model is constructed. The zero bound on nominal interest rates, in essence, is the place where the deflation begins to get its own traction in this model. Obviously, many of the things one might worry about accompanying a deflation are not features that are easily modeled in the context of our FRB/US model. The various kinds of financial stress and strains that might begin to develop—types of balance sheet problems—are treated only very rudimentarily in the model. I would be hesitant to use our model to analyze a deflationary economy, given that its equations have been estimated on a postwar period in which, on average, those kinds of problems really haven't been embedded in the data. So our ability to estimate the effects of deflation very precisely is going to be relatively small.

MR. MOSKOW. Okay, thank you.

CHAIRMAN GREENSPAN. President Broaddus.

MR. BROADDUS. David, as you've already said, a key factor in your forecast, which I think is a fairly optimistic one, is strong structural productivity growth. Looking at the way you break that down on page 9 in the first part of the Greenbook, the strong growth in multifactor productivity is a big part of that. That has been accelerating, and you expect it to continue at a significantly high rate of increase for the next couple of years, throughout the projection period. I don't think we understand a whole lot about multifactor productivity, and I'm wondering if that

expectation is basically an extrapolation. Or do you have some more specific thoughts on which to base it?

MR. STOCKTON. As you're well aware, President Broaddus, multifactor productivity is in essence a residual. It measures everything that we don't really understand about productivity. In extrapolating it, we use various procedures involving statistical filters to try to ascertain the underlying trend. And those statistical filters generally make us feel reasonably comfortable with the kind of figures we've written down here. As I indicated earlier, I think there are risks on both sides. I see the risks more to the upside than to the downside in this particular aspect of our forecast, given the issues that President Poole was raising. Our statistical filters in a sense want to down weight some of the more recent observations; those data haven't been through an annual revision yet. So there are some reasons for being relatively conservative, as we have been in our forecast. But the recent performance of productivity has been absolutely spectacular. We are nervous about putting in a lot more productivity growth than we've shown, in part because those same statistical filters, as I indicated earlier, over-interpreted the pickup that we got in the early 1990s immediately coming out of that recession. They showed more of that pickup in trend productivity than ultimately turned out to be the case. So I think we need to be careful about getting head-faked by the last year's data, given the rather extraordinary circumstances of the period. But in terms of being able to model underlying technical progress or organizational efficiencies—the kinds of things that actually go into productivity—we just don't have a very good handle on how to measure them.

MR. BROADDUS. Thank you.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. David, my question is related somewhat to the interchange you had with Michael Moskow about deflation. I had a chance to look at the Board staff's domestic nonfinancial briefing and the exercise of estimating the probability of attaining deflation, as you define it, over a four-quarter period. I was struck by how large that probability is. I wondered what level of concern you had about that probability; 28 percent is not a small number. We had done a similar exercise for a previous meeting, but we didn't have quite the same definition. I actually like your definition better because I think it is more realistic in terms of assuming a ½ percentage point error in the core PCE measure of inflation. How did the probability numbers strike you when you got those results?

MR. STOCKTON. Well, when we first started calculating those probabilities earlier this fall, I think we were struck as well by how large they were. Again, one could imagine a situation in which we were getting beneficial shocks to wages and prices and faster productivity growth—scenarios where those developments were the principal drivers in a period of declining prices. But from a policy perspective, deflation probably distorts—just as inflation does—relative price signals and the tax system. Even with what I would term a relatively benign deflation we'd have those kinds of effects, so there would be some negatives associated with that. As I indicated to President Moskow, the more serious concern is ending up in a Japanese-style deflation with these shocks leading us to zero inflation and with aggregate demand being weak enough that the Committee had already lowered the funds rate to zero. That scenario has a lower probability. Still, I think one would have to admit that an 8 to 9 percent probability of that outcome is pretty high, too. Obviously, those confidence intervals reflect the fact that there is a lot of uncertainty in the outlook.

MR. PARRY. This may be more like a China version of deflation, where the deflation probably reflects what is happening to productivity.

MR. STOCKTON. That's right. Certainly, if we created 5,000 stochastic runs of the model to calculate the probabilities, within the 28 percent of cases with deflation there would be many instances in which the deflation was relatively benign. Those would be instances where the deflation was caused by faster productivity growth or beneficial shocks to wage and price setting, with what I would perceive to be less serious consequences for monetary policy.

MR. PARRY. Right, and for growth.

MR. BERNANKE. May I follow up quickly? The stochastic shocks you used are drawn from the whole postwar period?

MR. STOCKTON. They are from 1970 on, which includes the high volatility period of the 1970s.

MR. BERNANKE. The volatility of these shocks has been much smaller in the last decade or so.

MR. STOCKTON. Yes, the volatility is much smaller, and indeed the probabilities are affected by that. That's one of the issues we debated among ourselves in our discussions about how to present the results. We debated whether it was better to show the results using the post-1983 period as opposed to the post-1970 period. We thought there were some reasonable arguments in favor of showing the results using only the post-1983 period, but we concluded that in a sense that might be considered cheating in terms of conveying to you the degree of our uncertainty. However, it is something we are looking at. We don't know if what we've had in the past twenty years is good luck or if there has been a regime change in how those shocks are generated. We're trying to see if something has changed to make those shocks smaller.

MR. PARRY. What would the numbers be if you used the post-1983 period?

MR. STOCKTON. To tell you the truth, I don't recall offhand exactly what the numbers were, but we've done that calculation, and we can certainly circulate them to the Committee.

MR. PARRY. That would be interesting.

MR. STOCKTON. I'd be happy to do that.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. To turn to the upside risks to the forecast, I certainly agree that they reside mainly in what the Congress might do with regard to fiscal stimulus. But I would note that the Greenbook forecast all the way through 2004 is considerably more optimistic than most private-sector forecasts on the state and local side—and by some multiple depending on what period one is looking at. I assume that others were impressed as I was by the gulf between where state revenues are and where they need to be to achieve anything close to a balanced-budget requirement, which I think exists in every state except Vermont. Major cuts will have to occur in state spending to achieve those balanced budgets over the next couple of years. I know you have a number of staff working on the state and local side, and I thought you might want to comment on that.

MR. STOCKTON. Indeed, we do see obvious risks associated with that piece of the forecast. But our general outlook is that we will begin to see some overall acceleration of activity and incomes, so we're going to get help for the state and local sector from a couple of different directions. One is improving tax bases over the next year. Also, lower interest rates are certainly helping both the financial condition of state and local governments and their ability to tap capital markets—as they apparently have done—in order to maintain a number of their spending programs. And while many states have run through their rainy day funds, there is still

some margin to shift funds from there as well. Still, as we look at our 2003 forecast relative to the trends of the last decade or so, those figures are relatively weak. But we think overall that some of the intense pressures that sector is feeling right now will probably be alleviated over the next year. Nevertheless, the state and local sector is clearly a downside risk relative to the federal side, where we see more upside risk.

MS. MINEHAN. Yes.

MR. STOCKTON. And, as you know, a number of the policy proposals that have been talked about use the federal government to provide some fiscal relief for state and local governments. The Administration has not signed on to that idea at all yet.

MS. MINEHAN. But the politics of that might not be all that attractive.

MR. STOCKTON. Yes, but there is certainly some pressure in that direction.

MR. WILCOX. I have a couple of additional comments. First, it is incredibly difficult to interpret some of the announcements that are coming out in the state and local area. For example, Governor Davis as you know—excuse me, I'm not quite as emotional about the topic as my faltering voice suggests. [Laughter]

MR. PARRY. I am!

MR. WILCOX. Over the weekend or late last week, Governor Davis announced a package of \$10 billion of budget cuts. My understanding, based on public sources, is that only about \$3½ billion of those cuts are to be applied in the current fiscal year; the remaining \$6 billion and change will be applied in the following year. That goes to the more general point that while there is a lot of distress in the state and local sector—and we've reflected a good deal of that in our projection—there's quite a bit of latitude for the states to meet these so-called

balanced budget requirements. They can do that in a number of different ways. I think what we'll see in coming months is recourse for things like accessing capital funds—

MS. MINEHAN. Right, and securitizing tobacco settlements.

MR. WILCOX. There's a whole constellation of financial devices available including, as Dave mentioned, the state financing of capital projects through bond issuance rather than on a current basis.

MS. MINEHAN. I agree with all that. I just was struck that the Greenbook estimate of growth in the state and local sector even in 2004 is at least double that of DRI. And other forecasts are below DRI's forecast. I know reasonable people can differ on this, but that seemed like a big difference.

MR. STOCKTON. Just to remind you, we have a higher estimate of potential output, too, than most other forecasts.

MS. MINEHAN. Yes, that's true.

MR. STOCKTON. That does not explain all of the difference, but it does account for at least a few tenths of it.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. David, I agree with the points you made about the timing of those spending cuts in California. But that's because the budget deficit is about \$6 billion in the current fiscal year and an estimated \$21 billion in the subsequent year. So these announced cuts are only part of the program.

MR. WILCOX. Yes, Governor Davis indicated that there are further announcements to come.

MR. PARRY. If they're going to get to a balanced budget.

CHAIRMAN GREENSPAN. Are they going to use real estimates, or is some of that trust fund shuffling and the usual accounting procedures they sometimes use to fill the deficit gap? Do you have any idea what they'll use?

MR. PARRY. I think they're meeting this week to figure out how they're going to do the rest of it because what has been proposed so far—the numbers that David mentioned—are mainly cuts in spending, half of which are in education because that's half the budget. I'm sure there are short-term actions they can take, but those actions probably are not going to be the solution to the problem.

MR. GRAMLICH. Just on that point, could I ask Bob a question? I read somewhere last night that, even if California laid off all its public employees, that would cut the deficit only by two-thirds. Can that be right. Have you seen that number?

MR. PARRY. Yes, I did see it. It struck me as a very surprising number. I can't remember who made that comment.

CHAIRMAN GREENSPAN. It could be related to the pension funds in the sense that the state could fire everybody but the prior pension obligations would still be there on the outlay side.

MR. PARRY. I don't know, but I'll take a look at that.

CHAIRMAN GREENSPAN. Let's move on to the Committee discussion. You have priority, President Jordan.

MR. JORDAN. Thank you again. Looking at the information that has become available in the few weeks since our last meeting, if one filters out the likely effects of the severe winter weather in parts of the country, the equity market gyrations, the waxing and waning of concerns over terrorist attacks and a possible war with Iraq, along with the fact that there are fewer

shopping days than usual between Thanksgiving and Christmas, there's nothing left to say.

[Laughter] We have all this time to fill up before lunch!

Nevertheless, I will report that the participants in a recent meeting of our Community Bank Advisory Council as well as our twenty-three directors are less gloomy than they were a few months ago. Whether this cheerier mood will last beyond the holiday season won't be known for some time, of course. But clearly the group dynamics have shifted from a competition to report more negative anecdotes than the others to a desire to point out things about which to be positive. For example, one director said he believes that a 15 percent increase in order backlogs and a 25 percent increase in shipments of forklift vehicles versus a year ago will prove to be a leading indicator of a stronger investment sector. I've never studied the leading indicator properties of forklifts, but my suspicion is that the Chairman has. [Laughter] In any event, the Cleveland staff is already on the case.

That same director is also on the board of a very large insurance company, and he reported that premiums at that company are on a pace to increase 150 to 200 percent this year. One banker reported that the most significant development to him is that lending on recreational vehicles has been his strongest line of business this year. I don't know whether that was supposed to be good news or not. In a go-around of the bankers, most said that the local economy they serve will be better next year but that their own earnings will decline as a result of narrow interest margins and an expected decline in fee income. As a side note related to the subject of potential output and capacity utilization, most expressed the view that their mortgage departments were operating beyond a sustainable capacity. The bankers also generally believe that their customers expect higher interest rates in the future, so the bankers' efforts to extend the

maturity of their liabilities by offering higher yields on longer-term CDs have generated little response.

On the national economy, while the various threats and uncertainties about the future that we've been talking about all year have not gone away, there are more-positive forces at work. Those include the narrowing of quality spreads in capital markets and the ample growth of the entire constellation of reserves and money measures. Moreover, there's an expectation that marginal tax rates are more likely to be reduced than increased in the foreseeable future. All those factors should enhance the inherent resiliency of the natural forces in a market economy.

I continue to believe that the overall performance of the U.S. economy in 2002 will be judged to have been far better than any ex-ante expectation about what the first year after the terrorist attacks would be like. I trust that the second year will be even better. Thank you.

CHAIRMAN GREENSPAN. President Guynn.

MR. GUYNN. Thank you, Mr. Chairman. Economic conditions in the Sixth District are largely unchanged over the short period since our last meeting. And few new clues have emerged that might shed light on the likely path of the national economy. While housing is still holding its own in most of our major markets, nonresidential real estate demand remains weak, and new construction has virtually ground to a halt. Our bankers continue to tell us that commercial loan demand remains sluggish, but the good news is that bank credit quality is holding firm. Employment gains have been limited to the services sector, and overall employment increases in November were reported in only one of our six states, Florida. Finally, while holiday sales were off to a brisk start, we all know how difficult it is to use such early reports to judge the full holiday season, especially with the early and aggressive discounting by

many merchants this year and the shortened number of shopping days. The expectation seems to be that total holiday sales may be about flat or up only modestly compared with last year.

Last week we finished our latest round of District director meetings in our five Branch offices, and a couple of interesting tidbits from those discussions caught my attention. First, one of our Florida directors who is very active in helping to put together mergers and acquisitions of modest-sized regional companies reported that, for the second month in a row, he was seeing a noticeable increase in activity in that market. He attributed the increased interest to business owners being more comfortable with acquiring companies rather than investing in new internal projects for growth. That is, acquisition brings more certainty. Perhaps this is a harbinger for things to come. Second, we're getting some signals that our important Florida tourism sector is showing new signs of recovery. Advance bookings at resorts and for rental homes for the first quarter of next year are strong, although the duration of the average stay is still less than typical. What is hurting that industry right now, though, is the absence of European visitors who typically flood into South Florida in the fourth quarter of the year. Finally, while you may recall my mentioning that bookings with Florida's cruise industry have been strong for some months, you also may have seen the reports of special problems experienced by guests on several recent cruises. Doesn't that just make you sick? [Laughter] Sorry!

Turning to the national economy, our view of the situation is not materially different this time from that of the Greenbook. The fourth quarter seems to be playing out pretty much as expected, with considerable caution throttling spending and with the motor vehicle give-back readily apparent. Of course, the more important question is how long and how mushy the soft spot will turn out to be. I certainly agree that the added stimulus from our further policy ease five weeks ago and the growing prospect of fiscal stimulus should help at the margin. The

narrowing of bond spreads over Treasuries, as Jerry Jordan has already suggested, and the outlook for lower energy prices should also be helpful.

At the same time, I'm struck by how often I continue to hear talk of excess capacity in many industries, including telecommunications, airlines, paper, and others, and maybe even autos. Moreover, the special inquiries we all made at Dave Stockton's request since the November meeting as to business investment spending plans seemed to reinforce the view that such spending continues to be pushed further out. Except for short-term costs, the increased productivity can be reasonably assured. While the message that the path we're on "ain't all that bad" may not be completely satisfactory for those in the political arena, it seems to me that we can be helpful by continuing to emphasize the merits of a growing expansion built upon improving fundamentals.

Anticipating a less-than-contentious policy discussion later in the meeting, I would suggest that we use the coming months of hopeful and thoughtful watching and waiting to continue to research and refine our thinking on potential. Just as the Board staff's briefing earlier this week emphasized the large error bands around estimates of GDP growth and inflation over coming quarters, I assume we would all agree—and the questions earlier today suggest we do—that significant questions remain about longer-term trends in productivity and their implications for potential. It would be nice to be able to calibrate our next round of policy tightening, when it comes, with some confidence and with the best chance of not allowing ourselves to get ahead of or behind the curve. The prospect of eventually finding ourselves in that phase of policymaking with a very stimulative fiscal policy still in place—and one that is hard to turn off—seems to make our best thinking for such a period all the more important.

Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President Santomero.

MR. SANTOMERO. Thank you, Mr. Chairman. In the short time since our last meeting we've seen a slight improvement in a few indicators of economic activity in the Third District. But overall growth in our region remains languid. Last time I reported on some deterioration in regional manufacturing activity. Over the past month we've seen a modest rebound. In October the general activity index from our business outlook survey had dropped to minus 13.1. In November the index returned to positive territory at plus 6.1, indicating a slight increase in manufacturing activity in the region last month. The indexes on new orders and shipments also returned to positive territory, consistent with the reports we received from our Beige Book contacts.

Capital spending plans improved in November compared with prior months. Our recent surveys indicate that the number of manufacturers planning to increase capital spending has been slowly expanding, while the number planning to reduce such expenditures has been slowly contracting. In November, one-third of our manufacturers said that they expected to increase their budgeted capital expenditures in 2003 compared with 2002. However, most reported that the bulk of that spending will come in the second half of 2003. Increases are planned for noncomputer business equipment, while spending on computers and software is expected to soften. Sufficient current capacity and slim profit margins were reported as the main factors tending to limit business capital spending. Several of our contacts also cited lack of confidence in the course of the current economic recovery and the possibility of a Middle East war as factors contributing to the reluctance to make major spending commitments.

Excluding autos, retail sales in our area have improved in recent weeks. Sales so far during the holiday season appear to be in line with retailers' modest expectations. Shoppers

continue to be cost conscious, and stores in the region have stepped up discounting in response. Merchants generally report that their inventories are at planned levels. Earlier some stores had fallen behind in receiving merchandise as a result of the lockout of West Coast dock workers. But most of these stores are now fully stocked or nearly so. Despite their continuing efforts to contain costs, many retailers report that they are hiring their usual complement of seasonal employees.

Economic conditions in other areas of the regional economy remain as they have been in the last few months. Labor markets continue to be weak. Payroll employment in our three-state area fell in October—the latest month for which we have data—and the unemployment rate edged back up. Commercial real estate markets also remained weak. Office vacancy rates are elevated. And while quoted rents in the Philadelphia region have been steady in recent months, effective rents have fallen as landlords have offered more concessions to renters. In contrast, residential real estate markets are still strong. Residential construction contracts and permits rose in October, and home sales remain at high levels. Residential real estate lending, both for refinancing and purchasing homes, continues to be strong.

Turning to the national economy, the few pieces of incoming data have been mixed. Equity prices have stabilized above their October lows, and credit conditions have improved. But uncertainty about geopolitical issues and the staying power of the recovery continues to damp consumer and business confidence. Until some of this uncertainty is resolved, it is doubtful that firms will make the commitments implicit in renewed investment and hiring. A weaker-than-expected November employment report shows that firms are not yet ready to make hiring commitments. This raises some questions about the staying power of the consumer.

So far the data suggest that consumers continue to be cautious and price conscious in their spending habits. Holiday spending is meeting retailers' modest expectations, but the pace of spending has slowed from that seen earlier. Rapid productivity growth has contributed to solid expansion in real incomes this year, which has supported increases in consumer spending. While I expect productivity growth to continue, I don't expect it to remain at the rapid pace we've had this year. My comfort level about the outlook for consumer spending and the projected acceleration in the pace of the recovery would rise were we to begin to see solid job growth. The Greenbook's projected 100,000 per month increase in private payrolls in the first half of next year would be welcome news indeed.

Our easing move last time was an insurance policy in an economy buffeted by a number of uncertainties. In summary, I can end by saying that nothing I see suggests that it's time to cash in that policy or, for that matter, to take out a larger one. Thank you.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. Thank you, Mr. Chairman. "Bumping along" may be about the best way to characterize economic activity in New England. Unemployment rose in October, and the region lost jobs. But most of the employment weakness seems to be centered in Massachusetts, where the pace of job losses over the last year has been more than double that of the nation as a whole. Jobs in the other five New England states are either flat year over year or growing slightly.

Other indicators beyond the employment data are mixed. Commercial real estate markets remain in the doldrums, especially in metropolitan Boston. But reportedly the Boston downtown situation is not getting any worse, while the suburban situation continues to deteriorate. Consumer confidence rose in November, especially as it relates to future conditions, and

manufactured exports across a wide range of industries increased markedly in both the second and the third quarters.

Last month I reported that October credit card outstandings were off significantly at a large local bank. That business is no longer deteriorating, though it has not returned to previous levels. Most analyses of forward-looking indicators on the region suggest that a near-term recovery of any strength is not likely. Rather, the last half of 2003 is projected as the earliest point at which a recovery might occur. Similarly, reported hiring plans for the first quarter of 2003 have deteriorated from where they were three months ago but remain stronger for 2003 than they were last year at this time for 2002. As I said, things are kind of bumping along.

In meetings with our Small Business Advisory Council and with members of a high-tech center for quality of management to which the bank belongs and in ad hoc discussions with a variety of local business leaders the themes sounded are similar. Business is growing but not strongly, and everyone is entirely cost focused. Capital spending plans echo the results of the special Beige Book questionnaire. On the whole, spending will take place but will not be particularly aggressive. Some companies that have been deferring equipment maintenance or upgrades plan to increase spending in 2003. Others say that they have little need to spend and that almost nothing is being done that does not relate to a specific new product or to efficiency improvements. One interesting note is that manufacturing business is being moved from Mexico to China. Apparently the cost advantages are large enough that even small manufacturers of a variety of items from golf clubs to high-tech gear are making that move.

Looking at the national scene, it would appear that a bit of the uncertainty plaguing the financial markets has eased; equity markets on balance are higher and a bit less volatile, and credit spreads have narrowed slightly. I assume that one proximate cause of more hospitable

markets—aside from our 50 basis point move—has been the dearth of any new, really bad, corporate scandals. Of course, the uncertainty associated with war plans clearly remains.

The nature of these markets seems to me to reflect a little brighter economic news as well. Consumer confidence was up a bit, housing remained strong, some business spending was occurring, particularly if we take out aircraft, and—until last Friday anyway—there was a firmer feel to labor markets. So I thought there was some cause for a bit of optimism, and I still see things as marginally better, though clearly we remain plagued by considerable excess capacity, a soft spot to be sure.

Our forecast is very close to the Greenbook's—a slow first half of 2003, growth picking up in the second half, and 2004 clocking in at better than our estimate of potential, reflecting both easier monetary policy and a bit more fiscal stimulus. Even so, unemployment remains stubbornly high, at least by recent experience; and by any measure, inflation continues quite low. This is not necessarily a forecast I like. But for now the stance of policy embodied in it is one with which I am comfortable. That's because for the first time there is a risk on the upside that seems rather likely to materialize—namely, a good deal more fiscal stimulus at the federal level than is built into the baseline. In fact, I quite like the shape of the alternative scenario that incorporates fiscal stimulus along the lines being discussed by Administration strategists. I only hope a way can be found to make a lot of that stimulus temporary so that the implications for future deficits are not overly negative. Thank you.

CHAIRMAN GREENSPAN. President Broaddus.

MR. BROADDUS. You may remember that last month I reported that the economy in our region had softened in October, and I attributed that at least in part to the sniper shootings in the D.C. area that were keeping people at home. Activity does appear to have firmed up a bit in

November according to some of the preliminary numbers we have from the surveys that our Bank conducts. But aside from housing, which for the most part is still quite robust, I would characterize the overall picture as very, very sluggish in our region. Factory shipments and orders were a little stronger in our November survey than in October, but my sense is that manufacturing remains quite weak.

Not surprisingly, given the generally soft economy, capital spending in our District—both current and prospective—is very restrained. The comments I'm hearing are very similar to those Tony, Jack, and Cathy have mentioned already. Some service-sector firms have plans to upgrade their computer equipment and software, but most manufacturing companies are already plagued with excess capacity. They don't expect any significant new investment. Some companies in the paper industry, for example, are actually spending at less than the depreciation rate, so they're trying to reduce capacity in that industry. I think that's true in a number of other industries as well. So that's the news on the regional economy.

On the national economy, the Greenbook's forecast for GDP growth over the projection period has been revised up, reflecting our rate cut and the assumption of additional fiscal stimulus. Under the circumstances, I think it's a fairly optimistic forecast in that it calls for a steady acceleration of growth over the next four quarters to an annual rate of about 4 percent by the end of next year. In addition to the stimulative policy assumption, the forecast is based on the view that an adjustment process is now in place that, if given time, will bring the economy back to a balanced growth path. A key driving force in this adjustment, as I see it, is that structural productivity growth is expected to exceed 2 percent in each of the next two years. The strong productivity growth in turn is expected to generate rising profitability, strong cash flows, and firming stock prices, which are supposed to help revive investment spending next year.

Further, the recently higher equity values and strong growth in real wages are expected to bring forth the real consumption expenditures necessary to underwrite growth in GDP of roughly 3¼ percent in 2003 and 4¼ percent in 2004.

I consider this projection eminently reasonable as a central tendency. In fact, I think something like it is the most likely outcome in the months ahead. But I still believe that on balance the risks in the forecast are skewed to the downside. Let me quickly list four of the risks that I think deserve particular attention. The first, which goes back to the question I asked David earlier, relates to productivity growth. The optimism regarding overall productivity growth reflects an assumption that multifactor productivity is going to rise at a rate of about 1½ percent in 2003 and 2004; that's slightly above even the recent relatively high realized rates of growth in MFP. I am personally optimistic about productivity, but there's no guarantee that we'll get that kind of growth. As we noted earlier, there is a lot of uncertainty here. And productivity is not an area about which we know as much as we'd like. That's the first risk I would point out.

Second, and I think this is an important point, the Greenbook assumes that the Fed is going to keep the funds rate at its current level until mid-2004. This expectation gives monetary policy a relatively big kick in the forecast since it pulls long-term interest rates down. A risk here is that the markets may not believe that the Fed will leave the rates so low for so long, probably in part because we removed the tilt at the last meeting. So the actual term structure may not in fact reflect the degree of stimulus that's built into the forecast.

Third, the Greenbook is projecting a strong upturn in business fixed investment—quite strikingly strong, I thought, in looking at the numbers—beginning in the first quarter. It may happen. But there's not much direct evidence that it has started yet, and we're only about three weeks from the first quarter at this point.

Finally, the rise in the unemployment rate from 5.7 to 6 percent in November raises the possibility that this recovery, like the recovery from the Gulf War recession, may turn out to be a jobless recovery. Unemployment may rise further. And if it does, the Fed may have to cut the real funds rate further next year, as we had to do in the latter part of 1991 and in 1992.

I don't think any of this warrants a change in policy today. But it may be constructive to find some way to signal the markets and the public that we're at least aware of these risks and are prepared to move decisively to deal with them as needed.

CHAIRMAN GREENSPAN. President Moskow.

MR. MOSKOW. Thank you, Mr. Chairman. Economic activity in the Seventh District generally appears to have remained soft in November and early December. Our retailing contacts were pleased with Thanksgiving weekend sales, but those sales didn't make up for an otherwise soft November. And retailers remain cautious about the rest of the holiday season.

As we know, nationwide sales of light vehicles recovered modestly in November but remained below the pace of the first nine months of the year. We pressed our contacts for their interpretation of the recent light vehicle sales numbers, and we heard quite a variety of views. Most believe that a good portion of the recent softness reflected a payback from the exceptionally high sales pace of July and August, when incentives were particularly high. One camp, including many auto dealers, also thought that there had been a more fundamental softening in demand. They also attributed the November increase in light vehicle sales to the late Thanksgiving because consumers tend to shift their interest away from automobile purchases and toward holiday shopping after Thanksgiving.

In contrast, the more sizable camp, including many contacts at automakers, thought that sophisticated consumers were just staying on the sidelines waiting for bigger incentives. The

producers' failure to persuade consumers that high incentives are gone is one reason to expect them to reappear. Another is the desire by General Motors to recover market share even at the expense of current profits. GM announced new incentives late last week, and contacts there have told us that they are contemplating other packages since the zero percent financing may have lost some of its novelty. Other industry contacts also seem resigned to a further sweetening of incentives. In fact, Ford this week has increased its incentive packages.

Despite the diverse interpretations, there is widespread agreement that 2003 will be another good year for light vehicle sales. The Big Three are all looking for a number around 16.4 million units, slightly above their view of the long-term trend. A sales pace of 16.4 million is also the consensus forecast of the thirty-three survey respondents who participate in our annual Economic Outlook Symposium that will be held this Friday though it's a bit lower than the Greenbook forecast.

Outside of autos, District manufacturing does not appear to have changed much since my last report. In particular, producers of capital goods are still suffering. With regard to future capital spending, we asked a lot of questions about firms' plans, and we received a lot of the same old answers. Businesses in the Midwest remain very cautious, and they appear to be taking a wait-and-see attitude as the new year approaches. However, many contacts say their firms are flexible and would be willing to increase capital spending should demand conditions warrant.

District labor markets remain slack, with most businesses reluctant to hire. One of the two temporary help firms headquartered in our District reported that year-over-year growth in demand for temps, while still positive, has been trending down for three months. However, the other firm noted a solid increase in demand for manufacturing workers after the survey week for the November employment report. So perhaps that's a little piece of good news.

Turning to the national outlook, the recent news, of course, has been mixed. On the negative side, the industrial sector in general remains weak. We still haven't seen a major turnaround in manufacturers' orders, and last Friday's labor market report was disappointing. But the other incoming information has been more positive. Motor vehicle sales and measures of consumer confidence have recovered some from the low readings we had in hand at last month's meeting. Financial markets appear to be improving. Notably, the decline in risk spreads may be a sign that markets have digested some of the shocks that they had to swallow over the previous several months. And we all hope that the decline in unemployment insurance claims, even after taking seasonality issues into account, is signaling that we may soon see some better news on job growth.

On balance, I think the weight of the evidence is telling us that the recent sluggishness in the economy is most likely a temporary soft spot and that growth should pick up during 2003. It remains to be seen how fast the recovery will proceed. Of course, strong productivity growth and an accommodative monetary policy could cause output to grow faster than the Greenbook forecast. But I also see some risk that the recovery could be painfully slow. First, no one knows how the situation in Iraq and the Middle East will play out. Second, I continue to be surprised how many business people I talk to are backing off from risk-taking because of the ongoing consequences of corporate governance scandals and the ensuing reforms. Hopefully, this will be a temporary phenomenon.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. Mr. Chairman, the economic recovery in the West has proceeded sluggishly in recent weeks, although some tentative signs point to a pickup in momentum going forward. Many District customers remained on the sidelines in October and much of November.

However, early tallies of holiday retail sales indicate that consumers in the West may have re-engaged. Store traffic is high, and sales are stronger than retailers expected. Several retailers have had to place additional orders for the hottest selling items.

The tone in the housing market has moderated some, with buyers less eager than they were earlier this year. We're beginning to hear about buyers canceling contracts and actually forfeiting deposits. Some builders have responded by delaying construction. In San Francisco, work on some multifamily properties has been put on hold. Elsewhere, start times for residential developments have been pushed back. Overall, however, housing is still solid, and builders are optimistic about the future and are investing time and money acquiring permits to build once the economy improves.

Job growth in the District has been lackluster, in part reflecting businesses' preoccupation with reducing costs. Several financial and tech firms announced additional layoffs as a part of cost-cutting measures. Businesses more generally are emphasizing productivity gains to improve margins. One retail consultant noted that she now spends more time helping firms to increase output per worker than she does helping them to boost market share. Some contacts indicate that the focus on productivity has begun to boost profits, likely easing pressure for additional layoffs.

The closure of West Coast ports in October disrupted vessel traffic and increased shipping times and costs well into November. For the most part, however, goods continued to move. Businesses worked around the disruptions by diverting cargo to other ports and by shifting to other modes of transportation. Available data and reports from contacts indicate only modest amounts of preemptive importing.

The good news is that the backlog of ships is cleared, as are most ground transportation bottlenecks. More important, a tentative contract settlement between longshore workers and

shipping lines on November 23 makes further port closures unlikely. The contract will be put to a vote in early January. Most people familiar with the negotiations and the settlement expect the contract to be ratified.

In contrast to most other District sectors, there is little room for optimism in commercial real estate markets. Vacancies have increased, and lease rates have fallen in several areas, in part because a number of IT and financial companies did not renew leases. Pessimism about recovery in commercial markets is leading some developers to look to residential development as an alternative. In Silicon gulch, which was the home to San Francisco's dot-com boom, developers are pushing the city to allow mixed commercial-residential properties to be converted to residential only.

Turning to the national picture, the economic data that came in since we last met have been on the weak side. We basically agree with the Greenbook forecast and expect weak growth in the current quarter. Some of this weakness can be expected to spill over into next year, though maybe in a fairly limited way. Recent data on holiday spending and auto sales suggest that the payback effect from the third quarter may be dissipating. And uncertainty appears to have receded to some extent, at least as gauged by measures of risks in the bond and stock markets.

Overall, the longer-term outlook seems reasonably good and the risks relatively balanced. Our forecast shows growth picking up from 3 percent in the first half of next year to 4 percent in the second half. We see downside and upside risks to economic activity going forward. Of course, the geopolitical situation remains a risk. But on the upside we have been surprised by the rapid productivity growth. And we continue to believe a good deal of this reflects fundamental technological change that will bolster growth. Our inflation outlook is about the same as in early

November; we expect the core PCE index to rise 1½ percent next year and 1¼ percent in 2004.

Thank you.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. Thank you, Mr. Chairman. I would describe District economic conditions as mixed. Somewhat surprisingly, at least to me, manufacturing does appear to be improving modestly and the improvement seems rather broadly based. We see it in the production of basic materials, in some industrial equipment, and in some higher-tech products as well. I don't want to overstate this, but I've been a bit surprised at what we've been hearing and seeing in the manufacturing sector.

Residential construction and residential real estate in general remain very healthy. That trend, of course, has been in place for a long time and is consistent with most of the information that we've been getting at the national level. Labor markets I would describe as relatively stable; they haven't been improving, but they haven't been deteriorating further. And if anything, local unemployment rates have drifted down a bit. Consumer spending appears to be mediocre, as best I can judge. I don't know how holiday sales are going to turn out, but I don't have the sense at the moment that the year is going to be all that exciting in that regard.

Despite these conditions, which I would characterize as mediocre, I think business attitudes remain quite sour. What I hear from a lot of business people is that conditions are no better than they were a year ago. From their perspective I think there's a sense of frustration that no demonstrable improvement has occurred over the last several quarters.

As far as the national economy is concerned, I'm reasonably comfortable with something like the Greenbook forecast for the next four or five quarters, for several reasons. I won't go through all of them, but I'll mention a few. One is that I do think we'll get more fiscal stimulus;

and monetary policy is stimulative as well. That, in my view, augurs well for future economic performance. Moreover, I think the economy is fundamentally quite resilient. Jerry Jordan already commented on that, and I won't elaborate. But that resilience has been demonstrated repeatedly in the last twenty years. I also believe that productivity is on a favorable trend that is likely to persist.

I would reiterate a point that was touched on in the earlier discussion of deflation. It seems to me that, with strong productivity improvement under way in two very, very large economies, the United States and China, and given what that implies for pressure on producers in some other countries, downward price pressure around the world should not be unexpected. If deflation were to materialize in this circumstance, when productivity is growing very rapidly, I wouldn't be at all surprised if it didn't turn out to be relatively benign if not constructive. Thank you.

CHAIRMAN GREENSPAN. President McTeer.

MR. MCTEER. Mr. Chairman, I'm going to miss Jerry Jordan's anecdotes and vignettes, but I might note that in this case I think he's behind the curve. We've already done the research and found that forklifts are indeed a leading indicator, but backhoes are a lagging indicator.

[Laughter]

CHAIRMAN GREENSPAN. It's still a very uplifting thing. [Laughter]

MR. MCTEER. The economy in the Eleventh District remains weak. It's hard to tell whether we're treading water or continuing to sink. Our Beige Book contacts, though, have become more optimistic about the outlook for next year than they had been. As in the rest of the country, manufacturing continues to be the hardest hit sector in Texas, losing almost 100,000 jobs since the beginning of this year. It seems as if the worst may be over, but announcements

suggest that layoffs will continue into next year, particularly in the high-tech area. One notable exception has been the growth in defense-related manufacturing activity. That growth involves some companies not usually thought of as defense-related. For example, Dell Computer just got an order for 60,000 computers for the U.S. Marine Corps.

Our Beige Book contacts mentioned three factors that drove their medium-term outlook from strongly pessimistic in early October to cautiously optimistic in early November: getting past the elections, a settlement of the West Coast dock strike, and our ½ point cut in the fed funds rate. Those developments have changed the mood out there. Most contacts now believe the economy will strengthen. War concerns are more muted as well, as evidenced by the removal of most if not all of the Iraq premium in oil prices.

At recent meetings I've mentioned that employment growth in Texas is weak relative to national trends. One reason is our mix of industries, especially our greater concentration in high-tech manufacturing. We recently took a look at the performance of some of the industries that usually benefit from lower interest rates, and we found that many industries that have been the most interest sensitive in the past actually have been losing jobs over the last year. Other factors are outweighing the stimulative effect of lower interest rates. The apparel industry has been in a secular decline, and lower rates are not likely to reverse that trend. The air transportation and hotel industries are still feeling the impact of September 11. And while lower interest rates have stimulated the demand for housing, particularly at lower price points, an excess supply of apartments, office space, and high-end homes has damped construction activity in spite of lower interest rates. Apparently, construction activity in Texas has not been damped enough because one real estate analyst recently said that a moat should be built around several metropolitan

markets in Texas to keep out developers for the several years it's going to take to work off excess inventory!

My anecdotes are not as interesting as Jerry Jordan's, but I might mention that Fujitsu Network Communications, which normally makes telecommunications gear, has begun to do contract manufacturing. The company is based in Richardson, Texas, in the heart of the telecom corridor, and it recently announced a contract to build automated teller machines. Work on that contract begins this month. The company finally realized that the demand for telecom equipment was going nowhere.

As I look at the national economy, I'm encouraged by the generally brighter tone of the data we've received over the last several weeks. The one exception is the employment numbers, which still point to a basically jobless recovery. The last time we had a similar jobless recovery—in the early 1990s—we had considerable disinflation. We don't have that much room for more disinflation this time around, but we do have some room left. I want to compliment Dave Stockton and other Greenbook and Bluebook authors for including an analysis of deflation scenarios in trying to assess the likelihood that the Committee might have to deal with such matters. Also I'd like to compliment Governor Bernanke for his excellent speech a few weeks ago dealing with deflation.

I believe the Committee's aggressive move at the last meeting was the needed preemptive strike. Given the more-encouraging news recently and the stronger forecast for 2003 and 2004 contained in the Greenbook, with which I happen to agree, I think our policy stance remains the right one. We've done about as much good as we're going to do. It's now time to pause and wait to see the impact of our last move. Given how low rates are and how little room there is to go, it would be good to get some help from the fiscal side.

[Secretary's note: Chairman Greenspan was called to his office, and the Vice Chair ran the meeting for a brief period.]

VICE CHAIRMAN MCDONOUGH. Governor Kohn.

MR. KOHN. Thank you. When I supported the assessment of balanced risks at the last FOMC meeting, I recognized that I was balancing near-term economic weakness with the enhanced prospects for robust growth over the longer term after our 50 basis point easing. It was a close call, as many noted. Although developments since the last meeting have been decidedly mixed—if that's not an oxymoron—on balance they have made me just a little more comfortable in that judgment.

One element of that is a reduced concern about near-term downside risks. With businesses holding back on investment and hiring, what was most worrisome was the possibility that consumption was showing signs of falling off and that, especially with a weak labor market, households could pull back even more than they were already showing signs of doing. In the event, although labor markets indeed remained tepid, consumption has come in only slightly short of expectations. Housing activity appears to be a tad stronger than anticipated, and consumer confidence is off the lows of last fall.

I also think we have had some support, albeit very faint, for the forecast of stronger growth ahead. For some time the key to that outlook has been diminishing uncertainty and risk aversion and stronger capital spending. The positive news on uncertainty and risk aversion comes from the financial markets, as many of us have noted. Equity prices, although falling back in recent days, generally have held the gains registered since early October. Despite further decreases in expected profits as read from projections of equity analysts, the implied reduction in risk premiums on equity has been manifest as well in the credit markets, where bond spreads

have continued to drop substantially. Obviously, this narrowing did not reflect any diminution of geopolitical risks. Rather, like President Minehan, I suspect it was the response to the decline in near-term downside risks I just mentioned and also perhaps to a perception that businesses and financial markets are making progress in working through the after-effects of the boom years of the late 1990s. As time goes by without major new revelations of financial chicanery or misrepresentation and as the size and the number of earnings restatements declines, investors may become less fearful about severe downside surprises left over from that era.

The improvement in financial markets is important because it could indicate that the concerns of businesses and households more generally are decreasing from the extraordinarily elevated levels of last summer and early fall. In addition, not only has the better tone in financial markets put a floor under household wealth, it also has facilitated long-term business financing, with both bond and equity issuance picking up in November from very depressed levels. Stronger balance sheets, by affording businesses a measure of protection against the consequences of downside risks, may make firms more willing to respond to favorable fundamentals like an acceleration in sales and the declining cost of capital. In fact, the pickup in equipment and software spending has already been under way, and the new data for this category of investment have pointed to a slightly greater upward tilt in the trajectory than previously expected. E&S spending both for the third and fourth quarters of this year has been revised up, so now the second half of the year is appreciably stronger than the first. It's much too early to call this the kind of strengthening trend we're all looking for to boost growth in the year ahead. Still, it is encouraging that the new orders data were sufficiently good to lead the staff to boost their projection of growth in E&S expenditures in the first quarter from the higher level now expected to prevail at the end of the year. This first-quarter projection is for a fairly strong pace,

and there may be downside risks. But even with some shortfall from this projection, the upward trend would still be in place.

Notably, the pickup in E&S investment this year—and its further acceleration in the forecast—occurs with an ongoing lack of pricing power. Fortunately, pricing power is not necessary for businesses to perceive profitable opportunities in new investment because many of us, myself included, wouldn't mind seeing overall inflation sustained somewhere around its current level. What is required is that firms are able to anticipate that the revenue from capital investment will exceed its cost by enough to provide an attractive margin. When revenue is constrained by stable output prices, other sources of revenue growth must be found, or costs must be compressed.

In the outlook, increases in unit sales and greater productivity of capital should provide opportunities to raise revenue streams. Moreover, restraint on compensation growth, increases in labor productivity, declines in the cost of high-tech equipment, and savings from replacing worn-out equipment should be sufficient to hold down costs. Beyond early hints of diminished uncertainty and stronger investment spending, it now seems more likely that additional fiscal stimulus will be boosting growth down the road.

I recognize that I've been accentuating the positive aspects of a very mixed set of intermeeting developments, and that the negatives, including the employment report and retreat of equity prices, have been prominent in recent days. The firming in activity out of the current soft spot is still a forecast, not a reality, and one that has plenty of downside risks even in the absence of a new shock. But for the first time in many meetings, there have been some favorable developments. And the new information on balance has at least been consistent with the

possibility of a strengthening economy next year, and it did not indicate a softer economy and greater downside risks than I had anticipated. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President Hoenig.

MR. HOENIG. Mr. Chairman, the Tenth District economy has shown some signs of improvement since our last meeting, but I would say that the improvement is still very, very modest, and I wouldn't wish to overemphasize it. Manufacturing activity has firmed somewhat over the last couple of months, and optimism in our surveys of manufacturers about the future has increased as well. And we are seeing some very modest signs that capital spending is increasing.

In our survey, the year-over-year index for production rose from minus 13 in September to plus 3 in November. It's the first time the index has been positive since October 2000, which is good news as far as we're concerned. In the survey we recently conducted, it is interesting that, while about 40 percent of those we survey still are thinking about decreases in spending, that's actually less than last time. So in that sense it's a positive note.

Consumer spending actually has picked up after easing earlier in the fall. Both discount stores and department stores reported that their sales increased in the first part of November and that business was also better over the Thanksgiving weekend. But talking with retailers is to me a bit like talking to ranchers in the sense that, while they said the situation was better, they're still very, very negative about the holiday season. The pessimism is due in part to the shortness of the Thanksgiving to Christmas selling period. We'll have to see how that turns out.

Housing activity in our region also continues to hold up remarkably well. New starts and resales are both fairly strong. Commercial real estate, on the other hand, is depressed—particularly so in the Denver area. Vacancy rates are high, and there's also leased space that

people would very much like to get rid of. Labor markets remain slack, and there are virtually no wage pressures in our region. Energy activity has edged up slightly in the October-November time frame. And our farm economy is mixed, with ranching very depressed and other areas doing well, based on the subsidies they're receiving.

Turning to the national economy, I would say that the picture is very similar to what we are seeing in the region; the data are mixed. But a slight improvement seems to have occurred, as others have noted, and I do agree with the Greenbook forecast. The downside risks are obvious. There's uncertainty about whether consumer spending will hold up, especially given the drop-off in auto sales, and about whether business fixed investment will continue to strengthen, which is so important for the incipient recovery. And, of course, how well foreign economies do also will influence the outcome.

On the positive side, as has been noted, monetary policy is stimulative and has become more so. Fiscal policy is stimulative, and the likelihood that it will become more stimulative is higher than it was a couple of months ago. And financial market conditions have improved since our last meeting. So I think we are in a position where we can be a bit more optimistic, but we really have to wait and see.

CHAIRMAN GREENSPAN. Governor Gramlich.

MR. GRAMLICH. Thank you, Mr. Chairman. At our last meeting, short-term interest rates were arguably too high and the outlook for aggregate demand too weak. There was a lot to talk about. By this meeting, there has been some adjustment on both sides. Both the Fed and the ECB have lowered short-term rates by 50 basis points since our last meeting. The economic outlook seems clearly stronger here and not much weaker in Europe. And even the latter development is saying something because the general pattern this year has been to downgrade

the European forecast pretty sharply. While it's much too soon to tell, at this point monetary policy might be positioned about right to induce a sustained recovery. Even the neutral bias looks pretty good to me now. Nothing is crying out to be changed, and there doesn't seem to be much to talk about today. This is one of those meetings that could have been canceled!

[Laughter] But it wasn't canceled, so let me take my time to point out an interesting contrast and to pose a thought-provoking potential dilemma involving the so-called jobless recovery.

The term "jobless recovery" was introduced into the lexicon ten years ago with the recovery of the early 1990s, largely to make a political point. But in terms of all the labor market indicators—payroll employment, help wanted, total hours worked, the employment-to-population ratio, and the unemployment rate—there are quite striking similarities between the jobless recovery that began in March 1991 and the one that seems to have begun in December 2001, also with negligible job growth.

While the job patterns have been quite similar in the two recoveries, there is an interesting difference. The 1991 recovery was characterized by higher inflation and a less accommodative monetary policy than we have now. Remember, that was still the time of opportunistic disinflation. Fiscal policy actually was tightened for most of the recovery period because of deficit fears. Productivity was strong but not as strong as it has been this year. At least in a relative sense, the 1991 recovery now looks like one partly constrained by policymakers who were, in turn, looking at inflation and deficits, with productivity playing a secondary role.

The policy constraints seem absent this time around. Almost everybody feels that monetary policy should be less constrained by inflation. Indeed, since the projected unemployment rate is in excess of NAIRU throughout the recovery, the staff is actually

forecasting inflation to decline. Earlier we were promoting opportunistic disinflation. Now we're worried that we may get too much disinflation.

As for fiscal policy, as a long time fan of higher national saving, I am personally quite nervous that long-term fiscal austerity goals may be dismissed from the policy agenda. They are being deemphasized at least, if not dismissed altogether. This means that fiscal policy has been and is likely to be much more accommodative than in 1991, with aggregate demand growing more rapidly. The jobless part of the jobless recovery is therefore not a policy story, as it was last time, but rather comes from the incredible performance of productivity.

This interesting contrast between the two jobless recoveries then leads to a potential quandary for us. On one side, vigorous productivity growth and declining inflation would argue for us to be quite slow to raise interest rates as the economy recovers. On the other side, fiscal policy might well become highly expansionary in the recovery period, in stark contrast to the 1991 pattern. In this case, overall policy might easily become too accommodative, and the Fed might have to take on its traditional role of removing the punch bowl—a question to ponder as we look ahead. Thank you.

CHAIRMAN GREENSPAN. Why don't we break for coffee? But before we do that, let me just mention that the reason I left the room was that I got a call from Bill Donaldson, whom many of you know. He said he is about to be nominated by the President for the chairmanship of the Securities and Exchange Commission. So I gave him my condolences!

[Laughter] Shall we break?

[Coffee break]

CHAIRMAN GREENSPAN. Vice Chair.

VICE CHAIRMAN MCDONOUGH. Thank you, Mr. Chairman. The Second District economy appears to have picked up some steam since my last report, with signs of improvement in the labor market and stabilization in manufacturing. Retailers are reporting some improvement in sales in November, particularly over the Thanksgiving weekend, with the winter weather producing a rebound in apparel purchases. And the streets of Manhattan were filled with tourists, which we were very happy to see. Surprisingly, considering all this, consumer confidence remained depressed in November following a big drop in October. Unemployment rates are about flat; they edged up very slightly in the most recent month. Sales of existing single-family homes weakened noticeably in October, while selling prices slipped very modestly. Home construction retreated a bit in October but remains at a fairly high level, particularly in the multifamily sector. Lower Manhattan's office market remained stable in October but office vacancy rates in the rest of Manhattan rose further. Manufacturers and purchasing managers report that conditions generally have been stable in recent weeks.

The fiscal situation in New Jersey, New York City, and New York State has remained very grim indeed. And we have what I think could now be called a fairly high probability of a transit strike beginning at midnight on Sunday. The demands by the transit workers are well beyond the ability of the transit authority or the city to accept. The effect of a transit strike on the city, especially on consumers and tourists, would be very unfortunate. It looks as if it's an accident that should be avoided but may very well not be.

The bankers in the District report that residential and commercial mortgages are being increasingly sought and not just refinancings. They have been tightening up on their lending standards, which is not surprising because delinquency rates on consumer and home mortgage loans have increased some. We share the view that the fourth quarter will be weak, perhaps even

less than 1 percent on GDP, and that growth should come back somewhat slowly next year.

However, we still think the risks to the forecast are somewhat to the downside, although that's less clearly the case than at our last meeting largely as a result of our move.

On the international front, I think Karen's report was as usual very well balanced. However, the news in Latin America, my early area of specialty, is getting worse. The Mexican political situation is essentially frozen until next July's congressional elections. The president does not wish to negotiate with the opposition, and the opposition doesn't want to negotiate with the president, and so nothing will happen. Fiscal policy cannot be expansive simply because the government can't find the revenues, and monetary policy has been tightened a little very recently. In Brazil, the delay in President-elect Lula da Silva's naming of his Economic Policy Committee is not good news. I think there is a growing conflict between his economic advisers and the leadership of his labor party. If it continues, that could result in an additional and unnecessary blow to confidence among both domestic and international investors. That would keep real interest rates high and, therefore, make the sustainability of the debt levels in Brazil more questionable. In my view, the risks are not overwhelming, but the direction is not a happy one. Thank you.

CHAIRMAN GREENSPAN. The President-elect was here in Washington today, wasn't he?

VICE CHAIRMAN MCDONOUGH. Yes.

CHAIRMAN GREENSPAN. Governor Olson.

MR. OLSON. I want to mention a couple of points that I've picked up in discussions with bankers, which tend to reinforce what we've heard around the table today. Basically the sense of bankers on the commercial lending side is that the psychology seems to have changed

slightly but lending activity has not yet followed. Of the four bankers I talked to, one of them who is the CEO of the largest mortgage lender in the country emphasized the significant decline in the number of home loan refinancing applications received in the last several weeks. We discussed some of the reasons for that. Refinancing applications tend to show a correlation with movements in the ten-year Treasury note. But the recent falloff is disproportionate to the movement in the ten-year Treasury issue, so that has caught his attention.

Two of my banker contacts commented on the growth in savings accounts at their banks. Most of the discussions I've had with bankers over the last year have focused on the asset side of the balance sheet. This is the first time much has been said about the liability side. Both of these bankers emphasized the growth in savings accounts; they said consumers were adding to savings as opposed to putting funds into an interest-bearing transaction account. Implicit in that behavior, in their view, is that consumers expect interest rates to stay low for some time. A similar reaction came from a banker who talked about what was happening with home loan equity lines of credit, which are variable rate instruments. Fifteen percent of those loans are now first lien positions, which carries the same suggestion—that home owners are taking advantage of the lower interest rate line of credit as opposed to locking in a longer-term rate. Implicit in that behavior, too, is some sense that the consumer thinks rates will remain low for a while.

On the fiscal policy side, I think the only thing we can know for sure is that it will be a front burner issue in the new Congress and will involve a lot of legislative activity. Also, the continuing resolution to fund the government expires January 11, and still only two of the thirteen appropriation bills have been passed.

It seems to me that the two scenarios built into the Greenbook are the most likely and are very realistic—the payroll tax holiday and the acceleration of the marginal rate reductions. As

President Minehan suggested, the discussion of the tradeoff between tax changes and budget balancing will spark a very lively debate. But at this point very little has changed from six weeks ago.

CHAIRMAN GREENSPAN. President Poole.

MR. POOLE. Thank you, Mr. Chairman. When I came in this morning, I thought one of our problems today might be that many of us would be leaving the building early and the press would see us and wonder what we were doing this morning. But we seem to have solved that problem! [Laughter]

My Wal-Mart contact—and obviously that company is intensely interested in the issue of consumption behavior—reports mixed currents that their people find puzzling. I've commented in previous meetings that Wal-Mart watches very closely the pattern of spending over the course of the month and has noted a paycheck cycle. There's a tendency for retail sales to pick up just after people receive paychecks, with a bigger cycle at the end of the month and a smaller cycle in the middle of the month. Ordinarily there is no particularly noticeable midmonth cycle in sales of items such as food and pharmaceuticals. Recently such a cycle has been appearing, and Wal-Mart interprets that as a sign of consumer distress. Apparently at least some households aren't able to spend on food on a steady basis but are waiting until they get their midmonth paycheck. On the other hand, that's not consistent with the fact that sales of discretionary items, electronics, and fashion apparel—

MR. MOSKOW. Is that an oxymoron?

MR. POOLE. Well, at least Wal-Mart's version of fashion apparel. How long has it been since you've been in a Wal-Mart? At any rate, those items are continuing to sell fairly well. So, there are these crosscurrents. At any rate, my contact was concerned about whether

households are getting somewhat stressed, and the pattern of food sales was one factor he pointed to in particular.

My contacts at FedEx and also at the trucking company, J.B. Hunt, both said that not much has changed in recent weeks. The outlook for next year is about the same as it has been. I asked my FedEx contact particularly about the Middle East situation. As you know, both FedEx and UPS have contracts with the Defense Department that allow aircraft to be diverted for cargo lift to anyplace in the world. The word that he has from the Defense Department is that the number of planes likely to be diverted would be small and would not have any effect on domestic business because there is plenty of excess capacity in that industry. So in his view nothing draconian is likely to happen in that regard. There may or may not be military action in the Middle East, but his best guess right now is that even if there were, the direct effect on the U.S. economy is not likely to be severe. Of course, the psychological effect is a different matter.

I've been in Europe, and I spent a day at the Bank of England. Incidentally, I was pleased to be the first person from the FOMC to congratulate Mervyn King—in person anyway. Officials at the Bank of England are very, very concerned about price increases in their housing market. House prices have gone up about 25 percent in the last year. They view that as a housing bubble, as something that has the potential to cause a lot of problems in the future when the bubble collapses. Certainly they are looking at it that way rather than as a sign of a great deal of optimism.

On the Continent, I attended a conference at the Bundesbank. The gloom there is hard to pierce. People are extremely pessimistic about being able to come to grips with the structural rigidities that exist; they don't know how they will ever get a political agreement on policy, given all the restrictive rules they have. In Germany, of course, there is a lot of budget pressure.

They're in danger of piercing the budget guideline of a 3 percent maximum deficit. For what it's worth, which is probably not very much, there are a lot of high fashion shops in Frankfurt, and all the manikins are dressed in black. The displays are barely relieved by any color whatsoever except for the Christmas decorations in the shops.

In terms of the national outlook, the Greenbook forecast makes very good sense on a central tendency basis. Al Broaddus talked about some of the downside risks, but it's important to understand that a central tendency also has upside risks. At some point in the next year or two I think we are likely to see a lot of things coming together that in retrospect anyway might be called a boom or, at least, a "boomlet." There will be a change in mood. I believe we will see positive developments in the stock market, employment growth, corporate profits, and other areas coming together at some point. That's the history in our economy, and I just want to be sure that that's on the table and not forgotten. We need to remember that that is a very real possibility. Thank you.

CHAIRMAN GREENSPAN. Governor Ferguson.

MR. FERGUSON. Thank you, Mr. Chairman. Following on Bill Poole's introductory comments, I want to share with you a comment that Ed Boehne made to me when he was on this Committee. He said that, when we have meetings such as this, the less there is to discuss the more there is to say. [Laughter] So I think I'll just say my piece.

To me the operative question, obviously, is whether the incoming data should give us any reason to rethink the decisions that we made at the last meeting. I'd say the answer to that question is "no." Indeed, a cautious central banker could easily say that the incoming data are not inconsistent with the main theme of slowing but still positive growth in the near term and the

view that the so-called soft spot we've described will go away at some point, leading to a gradual strengthening over the intermediate period.

As I look at the incoming data, they are clearly quite mixed, as others have indicated. On the one hand, we have had some positive news that attracted market attention: retail sales early on, initial claims, productivity surprises, etc. On the other hand, there was clearly some negative news as well: the recent ISM index, nonfarm payroll data, and the unemployment numbers popping up slightly. So, if one thinks of that as balance, then the question on my mind is, Why am I as comfortable as I am with the baseline forecast? I think the answer really is that the way these data played into the financial markets now makes the financial conditions much more consistent with the kind of growth, the slow growth, that's embedded in the baseline.

While the equity markets have been somewhat soft of late, it's clear that several weeks of solid gains in equity markets should certainly play through to consumers and to those businesses that depend on the stock market as a source of capital. Additionally, the volatility of equity prices, while still somewhat high, has declined noticeably from the October peak, again suggesting that investors have a somewhat greater sense of confidence about the longer-term outlook in the equity markets. Accommodative monetary policy and, as others have indicated, likely increases in the degree of accommodation in fiscal policy should also support both the household sector and the business sector.

If one looks more closely at the two major private-sector segments of the economy, households and businesses, one might also have some confidence that the financial conditions in each of those two sectors are supportive of the baseline forecast. Recent indicators of household credit quality appear to be basically stable I would say—certainly not worsening. The still large positive gap between the average coupon on outstanding mortgages and the current fixed rate

suggests that refinancings are likely to continue to be a source of strength for households going forward. Though they may have slowed, as Governor Olson indicated, there's still some room to run. Subdued inflation and rising productivity should support increases in real incomes as well, as will the continued health in the housing markets. So, while some concern has been expressed about the household sector, I think the situation there looks fundamentally sound.

I'd say the same is true on the business side. Spreads, while still elevated as Dino indicated, certainly have come off their earlier highs. Taking advantage of these calmer market conditions, businesses have reentered the bond market in a very major way and have reentered equity markets in a much more subdued manner. So clearly businesses have the financial ability to resume investment as soon as the period of haze or uncertainty that surrounds them dissipates.

Finally, with respect to this period of haze or uncertainty, I would argue that the passage of time and continued gradual improvement in the tone of the economy—absent a large negative shock or war—should allow risk aversions to recede and the outlook to clear. And with that I think business confidence is likely to increase.

Based on those comments I would say that the risks around the baseline, against the background of the accommodative policy in place and over an intermediate-term time frame, certainly do seem balanced. But in line with what President Poole just said, my sense of the balance of risks is just that—that there are risks both on the upside and the downside. Given how accommodative policy is—from the standpoint of both current monetary policy plus expectations with respect to fiscal policy—once this period of uncertainty lifts, there is a possibility that activity could pick up more quickly than the baseline suggests. On the other hand, we don't know how to factor in the issues with respect to corporate governance that may return to haunt us in a surprising way. And obviously, geopolitical risks still stand. Indeed, a

period of relatively slow growth where jobs are not being created has, if you will, its own downside risk. So, similar to what President Poole was suggesting, I think we really should be prepared to be flexible going forward. We may end up having to be aggressive in either direction, but this seems like a good time to sit still. Since the markets expect very little out of this meeting and given the fact that it's close to the holiday season, if we take no action today—dare I say it—that would not be a lump of coal from the market's perspective. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. Governor Bies.

MS. BIES. I'm going to borrow a term that President Minehan used earlier. I, too, had in the introductory sentence of my notes that I think we're in a "bumpy" period right now. The news since our last meeting has been mixed. As many of you have indicated, we have seen evidence of the good news and the bad news scenario. Productivity has been very strong, and as a result, unit labor costs are falling; holiday sales started off well; and initial unemployment claims continue to move down. But on the negative side, private payrolls and industrial production have declined in the last few months. The election has us all thinking about changes in fiscal policy. We really don't know exactly when those changes are likely to happen or how large the tax cuts may be. In general, I'd assess the situation today as one where we are still stuck in our soft spot; but, Mr. Stockton, I don't think we're in the La Brea tar pits yet.

I wanted to comment a little about my perspective on the productivity data. We've been talking a lot about that in the last few months. Recently I had occasion to meet with a group of senior corporate financial executives to discuss what they are doing to get these productivity numbers. They made me promise not to use the term "multifactor productivity," and they would

continue to talk with me. [Laughter] I quickly went back to my CFO jargon, and we got along fine again.

What they said is that they are obviously in a profit squeeze. They really can't raise prices, and demand in terms of volume growth is modest. Consequently, they are focusing particularly on expense reductions. Many felt that their companies had quite a bit of potential to cut expenses, for several reasons. One is that in the late 1990s many of these companies made a lot of acquisitions, aggressively getting into new product lines and opening new stores and plants. They were all so focused on the external side of supporting sales that very little was done internally in terms of rationalizing their business processes. But that is what they are doing now, basically going through a business process redesign.

I was amazed as we went around the table at the number who talked about eliminating steps in almost all of their business processes, from billing to procurement, which has radically reduced their infrastructure costs. And because a lot of these changes don't require much capital investment, either in the form of software or equipment, they are getting very big paybacks on these types of adjustments in their internal processes. They are also redesigning manufacturing lines. And they are getting very hard-nosed about finally eliminating the less efficient plants or stores that aren't meeting revenue expectations. Moreover, the general sense is that this cost cutting can go on for quite a while. They all felt that they weren't running out of steam yet and could continue to push this type of restructuring to improve the bottom line.

And in their view this was really good news in terms of enhancing longer-term productivity growth. With their cost structures rationalized, two things will happen when they get to the point where demand is getting stronger. First, it will throw more money to the bottom line and boost profits. More important, it will generate more free cash flow, which will allow

them to fund bigger investments or acquisitions when the time is right. So as financial officers they were feeling very positive; they viewed the current period as a break of sorts that has allowed them to look internally at ways to improve the productivity picture. And I didn't get a sense from any of them that they thought they were running out of ideas. In fact, they thought these endeavors had energized everybody in their companies, and they were very positive about the outlook for productivity for the next few quarters.

CHAIRMAN GREENSPAN. Governor Bernanke.

MR. BERNANKE. I guess I'm batting cleanup again. At this point there's not a great deal to add, but I'd like to reinforce some of the comments made by President Poole, Governor Ferguson, and Governor Bies about the upside potential for the recovery.

Although the news has not been entirely positive since our last meeting, I think the risk of a double dip or worse has receded considerably. Consumers seem likely to continue to support the recovery, and there are also some early signs of spring in investment and in the labor market. No doubt 2002 will go down as having been a very difficult year for the economy, but in every cloud there's always a bit of a silver lining. In that regard I think that there's some evidence that the U.S. private sector has used the past six months or so very effectively to restructure itself and to position itself for future growth.

On the real side, the productivity numbers we've talked so much about indicate a great deal of cost cutting, restructuring, and consolidation that will provide a basis for further expansion. The weakness in investment we've also discussed extensively; the one hypothesis is that it's the response to geopolitical uncertainty and other kinds of uncertainty. I think part of the story may be that companies, particularly those in high-tech industries, are still digesting and absorbing the investment they did in the late 1990s —learning how to use it better and looking

for new directions and new opportunities. There are in fact some indications of recovery in the high-tech sector, suggesting that perhaps that adjustment process is at least beginning to wind down, laying the basis for a recovery in that area.

On the financial side, one striking factor is that many firms have engaged in balance sheet repair—improving liquidity, improving their debt structure, and so on. I think there's also some sense that the new corporate governance environment that fell upon us in the summer is beginning to be absorbed to some extent by markets and firms. My evidence of this is only the general calming of financial markets, the decline in spreads, and the fact that we are beginning to see some new issuance in the market.

I'll just mention that, while still in its very early days, the new security environment is causing both firms and government to begin to adapt, with some adjustments being made along those lines. So, while it has been a weak year, the upside is that a lot of restructuring has occurred to prepare for the future, which may help to provide a basis for good growth in the next year.

As I mentioned, the consumer continues to hold up his end. If one looks at the details of the consumer's position, it is not as bad as those in the media make it out to be. Despite the up and down movement in the stock market, wealth-to-income ratios appear to be stabilizing around normal levels. Income continues to rise smartly. And the refinancing wave has supported not only spending but also the consolidation of debt, with the extraction of equity from homes helping to reduce and consolidate credit card and other debts, for example. The labor market is still somewhat of a puzzle, but it doesn't seem to be deteriorating, and I think there are some grounds for optimism there.

The main risks to the optimistic recovery scenario are largely external to the private sector. We've talked about war and terrorism, and there's a lot of fiscal uncertainty as well as fiscal possibility. And conditions abroad are an issue.

I think our easing last time was very well timed. It seemed clearly to have benefits on the second moments of financial markets as well as the first moments. As we go forward, I personally will keep a close eye on the risk premiums and other measures of stress in financial markets that I think reflect a number of these concerns. Also, since our measures of output gaps at this point are fairly problematic, given the uncertainty about productivity growth and so on, I think it will be important to keep a close eye on core inflation, which may be our best indicator of the output gap. Overall, I'm quite happy about the outlook. Though the picture is mixed, on balance I think the information that has become available over the last five weeks or so has been positive. Thank you.

CHAIRMAN GREENSPAN. Thank you very much. Let's move on to Vincent Reinhart.

MR. REINHART. Actually, Brian Madigan will give the monetary policy briefing.

CHAIRMAN GREENSPAN. Go ahead, Brian.

MR. MADIGAN.<sup>2</sup> Thank you, Mr. Chairman. I'll be referring to the table and chart labeled "Material for Monetary Policy Briefing." As background for your policy decision today, I thought it might be useful to review in a bit more detail how market participants reacted to your decisions at the November meeting. On the eve of that meeting, a small minority of investors anticipated no change in the stance of policy, most looked for a 25 basis point easing, and some expected a larger move. Survey results suggested that market participants were essentially unanimous that you would retain a balance of risks toward weakness, and market yields appeared to incorporate expectations that you would reduce rates by a cumulative 50 basis points by early next year.

Thus, the announcement of an immediate 50 basis point move and a shift to balanced risks surprised market participants. As shown in line 1, column 5, of the

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<sup>2</sup> The materials used by Mr. Madigan are appended to this transcript (appendix 2).

first exhibit, over the afternoon of the announcement, the expected fed funds rate for the month of December dropped 14 basis points. Column 4, lines 4 through 6, indicates that Treasury coupon yields declined modestly in the first few minutes after the announcement, and equity prices, line 7, increased a fraction of a percent. Bond yields then apparently reacted to the advance in equities and the implied spur to activity by more than reversing their previous declines, and Treasury coupon rates finished the afternoon actually up a bit, column 5.

Market participants seemed somewhat divided on how to interpret the risk assessment. Policy expectations derived from the February fed funds contract, line 3, should not have been contaminated by turn-of-the-year effects, unlike those for December and January, and the 1.18 percent value derived from the February contract seems to imply that markets on the whole did not take the assessment as indicating that the easing cycle necessarily had ended.

Over the next few weeks, economic reports and news bearing on earnings boosted investors' spirits, and longer-term policy expectations, indexed in exhibit 2 by the expected funds rate for August—the dotted line—moved higher on balance. Over the past ten or so days, however, investors saw the news as more downbeat. As a result, equity prices most recently have declined, leaving broad indexes off about 2 percent on the period and pulling policy expectations back down. On the positive side, as a number of you have noted, credit spreads have fallen considerably and liquidity in bond markets has increased, sparking a pickup in corporate issuance. Thus, your November action could be judged as having contributed to a modest net improvement in financial market conditions.

With that improvement and the outlook for the economy not too different on balance from that just after your November easing, market participants all but unanimously expect that you will keep the stance of policy unchanged today. And a large majority reportedly think you will again judge the risks to be balanced. A policy decision consistent with those expectations could be justified in terms of an economic outlook similar to that of the Greenbook. The Committee might find the gradual increase in resource utilization and the modest decline in core inflation in that forecast credible and appealing. And even if it preferred a faster decline in unemployment, it might be skeptical about its ability to calibrate an additional dose of stimulus to achieve the desired small boost to growth and not much more, given the uncertainties about underlying trends and the amount of stimulus still in the pipeline.

At the same time, the Committee might find the risks around that forecast still to be about roughly balanced, perhaps with the possibility of greater fiscal stimulus that President Minehan and others noted offsetting the downside risks stemming from geopolitical threats. Or, as noted in the Bluebook, it might see the current stance of policy as roughly balancing the low odds but high costs of marked further disinflation accompanied by economic weakness against the arguably higher odds but lower costs of an unexpected overshoot of growth and inflation. Even if the Committee has a somewhat stronger outlook than the staff—which, based on your comments today,

appears not to be the case—it might find holding to its policy stance for a while longer to be warranted, given the likely persistence of slack for at least several quarters.

If the Committee conversely is of the view that the outlook remains a bit too weak, it might choose to ease policy another quarter point at this meeting. While credit market conditions have improved on net over the intermeeting period, the improvement has been modest and perhaps less than would have been anticipated in view of the November policy move. And although the acceleration in activity in the Greenbook is plausible, as was noted it is still largely a forecast. Moreover, the pickup is rather gradual, and some slack remains even two years hence. The resulting continued decline in inflation could constrain the Committee's ability to engineer lower real interest rates should a negative shock at some point require another aggressive easing of policy. The Committee might prefer to preserve a somewhat greater inflation buffer and make faster progress against economic slack by easing policy again.

A policy adjustment at this meeting, of course, would surprise market participants. A 25 basis point move could feed through almost fully to other short-term rates, especially if investors extrapolated the two consecutive policy actions. The response of bond yields is difficult to predict, but an increase could not be ruled out if equity markets rally, as was the case following the November move. Of course, leaving the stance of monetary policy unchanged, with a statement of balanced risks, would be right in line with participants' expectations, and market prices probably would change little in response. As always, market participants will be looking carefully at the wording of the announcement for clues about the Committee's outlook. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. Questions for Brian?

MR. PARRY. Brian, I'd like to ask you a question about the path for monetary policy in chart 4 in the Bluebook, which is right before page 9. The chart in question is at the upper left. The Greenbook path for the funds rate is above the perfect foresight alternative for about a year and then falls below it. I have two questions about that. First, could you talk a little about why that path was chosen? And second, if we go for a period of a year, say, where the path is above the perfect foresight alternatives, is there a risk that markets might begin to think that our inflation objective is below 1 percent?

MR. MADIGAN. Your first question relates to why the baseline assumption for monetary policy was chosen. I'll pass to Dave Stockton for that.

MR. STOCKTON. Well, in writing down the policy assumption for the purpose of the Greenbook forecast, I'm not sure I would choose a path that would be considered optimal, so to speak. If you gave me your objective function, including your objectives for both inflation and the outlook gap and your sensitivity response, I'd be happy to use that for the purpose of the baseline Greenbook forecast. I don't do that because I don't know your objective function and I don't necessarily want to inject the staff's view directly into your current policy deliberation by making it appear as if we are coming to you with a policy recommendation at each meeting. So in some sense we're trying to distance ourselves a bit from the issues that you're going to have to debate rather than be seen as advocates of a particular policy.

MR. PARRY. But there is an implied view about policy.

MR. STOCKTON. That certainly does not leave us off the hook; we have to put down something as a policy assumption. So what do we do? Where I think the Greenbook baseline path for the funds rate delivers a policy forecast is that our baseline forecast puts the economy on a path to getting the unemployment rate back to the natural rate. And in the extended forecast, we get inflation down to about 1¼ percent. We do it, obviously, with a different trajectory or different timing of policy—with a little more tightness relative to the optimal path in the near term and a little more looseness relative to that optimal path over the longer term. But that forecast is still not inconsistent with arriving at some rough equilibrium out there four or five years down the road.

MR. PARRY. And that's better because?

MR. STOCKTON. Again, from my perspective it's more a political issue than an economic one because I would not like to sit here at each meeting and tell you that a particular policy is the optimal one. I don't believe it's the staff's role to say that you should be cutting the funds rate 25 or 50 basis points, or that you ought to be doing that in three or four steps, or that you ought to raise it by a certain amount. But I think the Greenbook forecast is useful because it is not delivering a result that is significantly at odds with what I perceive to be, roughly speaking, your longer-term policy objectives.

In terms of what would happen if we were to pursue this optimal path, the markets clearly are not building in expectations of something that looks like that path. If anything, as I indicated in my remarks, they're expecting more tightening. So in our forecast when you don't tighten to the extent that the markets currently anticipate as we move into the second half of next year and 2004, that produces some rally in the bond markets. When the markets see that the economy does not necessarily need that tightening—and they see you are not doing it—they are going to revise down their path for the future expected funds rate. I don't think these actions somehow result in a downward revision in the markets' view, relative to current expectations, about what your longer-run inflation objective is. So that's a long-winded explanation of why it is that we don't use that so-called optimal path as the baseline for the projection.

I would just say, however, that I'm open to suggestions. Obviously, we are trying to produce something that is useful for your deliberations. But if I were required to produce a forecast that involved taking a strong stand on exactly what the Committee's objective function looks like, that would be a task fraught with difficulty for me.

MR. REINHART. I think one could also say that the mechanical application of the policy made under a perfect foresight rule suggests perhaps more confidence in the exact

structure of FRB/US than anybody around the table actually has. In particular, one property it has is the ability for monetary policy to have an almost contemporaneous effect—a one-quarter effect—on real activity. Therefore, it does lend itself to a policy involving sharp changes in the funds rate. That's why we have to put in a penalty for smoothing the funds rate. So I think the staff is in the position of not knowing your objective function nor knowing the median structure of the U.S. economy that would together form the optimal policy path. The interest rate assumption just tries to smooth through some of those problems.

MR. PARRY. I agree, but there is an implied objective function in what does get put into the baseline, and I think it had some interesting characteristics this time.

CHAIRMAN GREENSPAN. Governor Gramlich.

MR. GRAMLICH. Let me just say on this issue that I don't think anybody has to apologize for not using the model ultra-precisely. I always look at the perfect foresight simulations, and the main thing I was worried about this time was what would happen if we lowered rates now. Would that be consistent with the outcome that we would like in the long run? So if we don't lower rates all the way to the level suggested by the simulation, that doesn't worry me so much. I think our policy has been roughly consistent with this model. We've lowered the funds rate, and then at some point we will raise it. The fact that we're not right on the button I don't think is as much a story as is the fact that we are doing roughly what this model would suggest.

CHAIRMAN GREENSPAN. Other questions for Brian? If not, this is the place where I usually hold court for an hour and a half. [Laughter] Since I don't have anything to say at the moment other than what has been said around this table, I won't do that today, and maybe I'll get

credit! [Laughter] I would conclude on the policy issue that we should stay where we are at 1¼ percent on the funds rate and retain the balanced risks assessment. Vice Chair.

VICE CHAIRMAN MCDONOUGH. I support your recommendation and applaud the brevity. And I hope that it will be imitated by all.

CHAIRMAN GREENSPAN. President Jordan.

MR. JORDAN. I support the recommendation.

CHAIRMAN GREENSPAN. Governor Ferguson.

MR. FERGUSON. I support your recommendation and will put aside my two-hour speech. [Laughter]

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. I support the recommendation. I was intrigued by the conversation on the perfect foresight model because I am a bit concerned that we keep aiming the baseline of policy at an outcome that, to me anyway, has a little too much excess capacity for too long a period of time. But I was very taken with President Poole's and Governor Bernanke's discussion of the upside risks. Aside from fiscal stimulus, I hadn't really given a lot of thought to other upside risks. I am convinced that the risks are pretty balanced and that in fact we're going to have some fiscal stimulus that may take things in the direction my two colleagues mentioned. So I'm happy to be where we are.

CHAIRMAN GREENSPAN. President Poole.

MR. POOLE. Mr. Chairman, I support your recommendation, and I promise that I will never reveal that I observed the Chairman speechless on one occasion. [Laughter]

CHAIRMAN GREENSPAN. Governor Kohn.

MR. KOHN. I agree with your recommendation, Mr. Chairman.

CHAIRMAN GREENSPAN. President Hoenig.

MR. HOENIG. Mr. Chairman, I thought your comments were brilliant today, and I support you. [Laughter]

CHAIRMAN GREENSPAN. I compliment you. President Moskow.

MR. MOSKOW. I agree with your comments, Mr. Chairman. I hope the General Counsel doesn't object to your change in procedure at this meeting.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. I, too, support your recommendation. My only concern is whether you intend to bank that hour and a half that you didn't use! [Laughter]

CHAIRMAN GREENSPAN. President Santomero.

MR. SANTOMERO. I support your recommendation, Mr. Chairman.

CHAIRMAN GREENSPAN. President Broaddus.

MR. BROADDUS. I support your recommendation, Mr. Chairman. Following up on the exchange between Bob Parry and Dave Stockton, I do worry a little about the disconnect between our policy assumption and market expectations. So if there were an opportunity in the statement to recognize that, with a term or a phrase, it might help to bring these diverging views back into better alignment. That perhaps would reduce some of my concerns about the downside risks, although I recognize that my view on that is clearly an outlier at this meeting.

CHAIRMAN GREENSPAN. President Guynn.

MR. GUYNN. I agree as well, Mr. Chairman.

CHAIRMAN GREENSPAN. Governor Bies.

MS. BIES. I agree with you, Mr. Chairman. And following up on other comments, maybe you didn't bank your minutes, but we don't know if you have rollover minutes for the next time.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. I agree.

CHAIRMAN GREENSPAN. President McTeer.

MR. MCTEER. I support your recommendation, applaud your brevity, and can say from personal experience that you'll get no credit for it. [Laughter]

CHAIRMAN GREENSPAN. Governor Bernanke.

MR. BERNANKE. I support your recommendation, Mr. Chairman. If your brevity is going to be a habit, though, I would like to get my tuition back. [Laughter]

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. I agree again. [Laughter]

CHAIRMAN GREENSPAN. I meant to say Governor Gramlich.

MR. GRAMLICH. I'm glad I get at least one vote. [Laughter]

CHAIRMAN GREENSPAN. Governor Olson.

MR. OLSON. I support.

CHAIRMAN GREENSPAN. Do I have everybody? Read the appropriate language, please.

MR. BERNARD. The language is on page 11 of the Bluebook: "The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee in the

immediate future seeks conditions in reserve markets consistent with maintaining the federal funds rate at an average of around 1¼ percent.”

And for the balance of risks sentence: “Against the background of its long-run goals of price stability and sustainable economic growth and of the information currently available, the Committee believes that the risks are balanced with respect to prospects for both goals in the foreseeable future.”

CHAIRMAN GREENSPAN. Call the roll, please.

MR. BERNARD.

|                         |     |
|-------------------------|-----|
| Chairman Greenspan      | Yes |
| Vice Chairman McDonough | Yes |
| Governor Bernanke       | Yes |
| Governor Bies           | Yes |
| Governor Ferguson       | Yes |
| Governor Gramlich       | Yes |
| President Jordan        | Yes |
| Governor Kohn           | Yes |
| President McTeer        | Yes |
| Governor Olson          | Yes |
| President Santomero     | Yes |
| President Stern         | Yes |

CHAIRMAN GREENSPAN. Would you pass around the proposed statement?

VICE CHAIRMAN MCDONOUGH. I think silence indicates approval, Mr. Chairman.

CHAIRMAN GREENSPAN. Is it okay with everybody? Vincent Reinhart, you wanted to make a comment?

MR. REINHART. I just wanted to note that by our next scheduled meeting, the Federal Reserve System will have in place a new discount window facility. As the Lombard facility has been thirty years in the making, I wanted to remind the Presidents that the Reserve Banks should indicate to Jennifer Johnson by this Friday how they intend to set the initial penalty rate. We do want this to get started the right way.

CHAIRMAN GREENSPAN. And our next meeting is scheduled for?

MR. REINHART. January 28 and 29.

CHAIRMAN GREENSPAN. It's January 28 and 29. With that we adjourn for lunch and hopefully we will launch our retiring President on a major new venture.

END OF MEETING